PHILIPS 29GX1890

MODEL

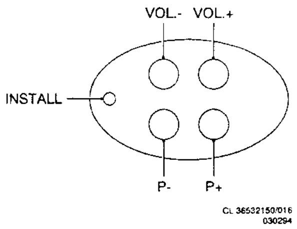
SERVICE MANUAL

1. Technical specifications

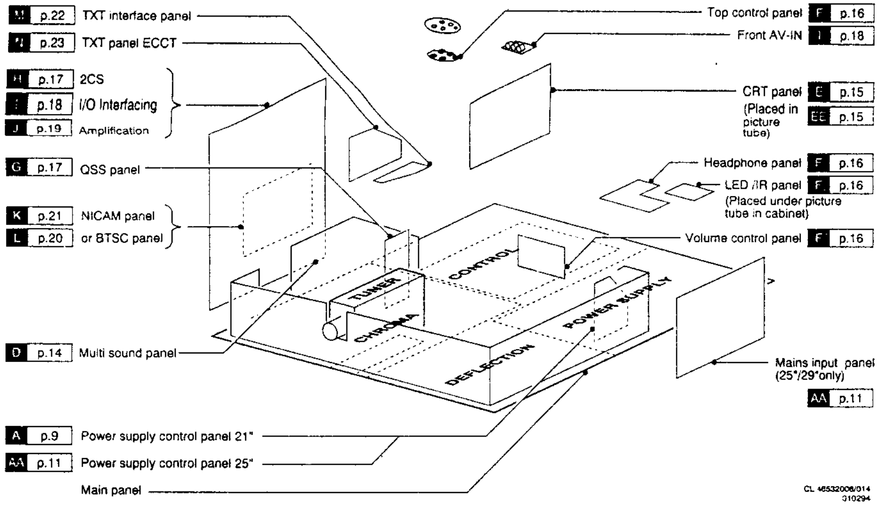
Mains voltage	: 140 - 276 V ; 50/60 Hz (± 5%)	
	: 90 - 276 V; 50/60 Hz (± 5%)	
Power cons. at 220V~	: 21" 64 W (stand-by ≤ 12 W)	
	: 25" 76 W (stand-by ≤ 14 W)	
Aerial input impedance TV	: 75Ω - coax	
Min. aerial input VHF	: 30µV	
Min. aerial input UHF	: 40µV	
Max. aerial input VHF/UHF	: ≥ 180mV	
Pull-in range colour sync	: ± 300Hz (NTSC 3.58: ± 250Hz)	
Pull-in range horizontal sync	: ± 600Hz	
Pull-in range vertical sync	: ± 5Hz	
Picture tube range	: 21" A51 KXR 95X	Narrow neck Global Hemisphere
	: 25" A59 LAM 93X01	Narrow neck Northern Hemisphere
	: 25" A59 LAM 94X01	Narrow neck Neutral Hemisphere
	: 25" A59 LAM 95X01	Narrow neck Soutern Hemisphere
🔈	: 2x2W squeeters 25Ω + 1x4W subwoofer 16Ω; 20Hz-14kHz	
TV Systems	: /65/67/68/79/94:	PAL B/G (NTSC 4.43 PB optional)
	: /75:	PAL B/H (NTSC 4.43 PB optional)
	: /56/57/69/70/93:	PAL B/G/I & SECAM B/G/D/K & NTSC M (NTSC 4.43 PB optional)
	: /58/59/62:	PAL B/G & SECAM B/G/D/K (NTSC 4.43 PB optional)
	: /54:	PAL M/N & NTSC M
	: /71/85:	NTSC M
	: /78:	PAL M
Indications	: On Screen Display (OSD)	
	: 1 LED (⏽ green, ⏻ red, "RC5" orange)	
VCR programs	: 0 and 39	
Tuning and operating system	: ▭ VST/PLL	
UV 913/IEC (VST)	: Band I:	48.25 - 82.25 MHz
	: Band III:	163.25 - 224.25 MHz
	: UHF:	471.25 - 855.25 MHz
UV 915E/IEC (VST)	: Band I:	48.25 - 168.25 MHz
	: Band III:	175.25 - 447.25 MHz
	: UHF:	455.25 - 855.25 MHz
UV 936E/F & UV 936E/IEC (PLL)	: Band I:	55.25 - 157.25 MHz
	: Band III:	162.00 - 451.25 MHz
	: UHF:	457.25 - 801.25 MHz
UV 953/IEC (VST)	: Band I:	48.25 - 93.25 MHz
	: Band III:	168.25 - 224.25 MHz
	: UHF:	471.25 - 863.25 MHz
UV 963/IEC (VST)	: Band I:	46.25 - 102.25 MHz
	: Band III:	138.25 - 224.25 MHz
	: UHF:	471.25 - 855.25 MHz
Local operating functions	: Volume +/-, Program +/-, Install	

2. Connection facilities

Rear cinch AV IN	: ◎ 1 x cinch CVBS →⊙ 1V $_{pp}$ / 75Ω
	: ◎ 2 x cinch Audio L & R →⊙ 500mV RMS / 47kΩ
Rear cinch AV OUT	: ◎ 1 x cinch CVBS ⊙→ 1V $_{pp}$ / 75Ω
	: ◎ 2 x cinch Audio L & R ⊙→ 500mV RMS / 47kΩ
Rear SVHS	: Y 1V $_{pp}$ / 75Ω
	: C 1V $_{pp}$ / 75Ω
Rear SCART (for /62)	: 1 x CVBS →⊙ 1V $_{pp}$ / 75Ω
	: 2 x Audio L & R →⊙ 500mV RMS / 47kΩ
	: 1 x CVBS ⊙→ 1V $_{pp}$ / 75Ω
	: 2 x Audio L & R ⊙→ 500mV RMS / 47kΩ
Front cinch AV IN (optional)	: ◎ 1 x cinch CVBS ⊙→ 1V $_{pp}$ / 75Ω
	: ◎ 2 x cinch Audio L & R ⊙→ 500mV RMS / 47kΩ
Front headphone	: 🎧 8-600Ω; 10mW



PWB location drawing



3. Warnings and notes

Warnings

1. A set to be repaired should always be connected to the mains via a suitable isolating transformer.

2. Safety regulations demand that the set be restored to its original condition and that components identical with the original types be used. Safety components are marked by the symbol ⚠.

3. To prevent damage to ICs and transistors any flash-over of the EHT should be avoided.
   To prevent damage to the picture tube the method, indicated in Fig. 3.1, has to be applied to discharge the picture tube. Make use of an EHT probe and a universal meter (position DC-V). Discharge until the reading of the meter is 0V (after approx. 30s).

4. ESD ⚠

   All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair may reduce life drastically. When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance. Keep components and tools on the same potential.

5. The deflection and multipole unit is delivered separately of the picture tube; it has to be adjusted by the service technician (see chapter 7).

6. Proceed with care when testing the EHT section and the picture tube.

7. Never replace any modules or any other parts while the set is switched on.

8. Wear safety goggles during replacement of the picture tube.

9. Use plastic instead of metal alignment tools.
   This in order to preclude short-circuit or to prevent a specific circuit from being rendered unstable.

10. Upon a repair of a transistor or IC assembly i.e. a transistor or IC with heatsink and spring remounting should be carried out in the following order:
    1. Mount transistor or IC on heatsink with spring.
    2. Mount assembly and resolder the joints at last.

Notes

1. Do not use heatsinks as earth reference.

2. The direct voltages and waveforms should be measured relative to the nearest earthing point on the printed circuit board.

3. The DC voltages and oscillograms are where necessary measured with (┬) and without (✗) aerial signal. (settings as in Service Default Mode; see chapter 8). Voltages and oscillograms in the power supply section have been measured for both normal operation (⏼) and in the stand-by mode (⏻). As an input signal a colour bar pattern has been used.

4. Connectors used for the modules (board to board) are gold-plated and must be replaced by the same type only.

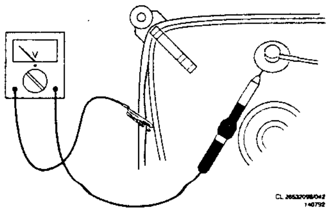


Fig. 3.1

4. Mechanical instructions

General

All panels are plugged for easy (dis)connecting and can be removed without damaging the circuitry.

For **video related faultfinding** the main carrier can be disconnected from the TXT panel and the 2CS+I/O+AMPL panel as the set will automatically switch to internal CVBS (except for SECAM chroma which signal path is via the 2CS+I/O+AMPL panel). Of course for CVBS I/O faultfinding the 2CS+I/O+AMPL panel should be connected to the main carrier.

For **audio related faultfinding** first measure pin 1 IC7225-6F (AUDIO_OUT LF audio signal inclusive BTSC and NICAM info) and TP 42 and 43 at resp pin 5 and 3 of connector Q4 (AF1 and AF2):

- If all OK, the fault is on the 2CS+I/O+AMPL or NICAM or BTSC panel
- If not all OK, the fault is on the main carrier (QSS or IC7225-6F

Service position MAIN CARRIER

For the main carrier panel with the plugged panels on it there two service positions are possible:

A: For faultfinding on the component side of the main carrier
B: For (de)soldering activities on the copper side of the main carrier

Position A can be reached by first shifting out the mains cord fixation block, then loosen the carrier lips (1) and then pulling the carrier panel (2) for approximately 10 cm (all cables to all other panels in the TV can be remained connected).

Position B can be reached from position A by disconnecting all cables to the TXT and the 2CS+I/O+AMPL panel and the degaussing cable. Put the carrier on the line transformer side.

Service position 2CS+I/O+AMPL panel and NICAM/BTSC panel

The entire bracket with both the 2CS+I/O+AMPL panel and the NICAM/BTSC panel can be shifted out of the cabinet by pulling backwards the entire bracket (3). By then the bracket with all panels in it can be laid on it's left side (seen from the back) while still connected to the main carrier.

Also both panels can be easily clicked out of the bracket. The 2CS+I/O+AMPL panel can be shifted backwards after releasing one catching finger on the top part of the bracket. The NICAM or BTSC panel can be released by pulling upwards the middle part of the bracket a little.

Service position MAINS INPUT panel (25" only)

The entire bracket can be shifted out of the cabinet by pulling backwards the entire bracket (4). By then the bracket with the mains input panel in it can be laid on it's left side (seen from the back) while still connected to the main carrier.

Also the mains input panel can easily be clicked out of it's bracket by releasing the 2 catching fingers on the top part of the bracket.

Service position TXT and TXT INTERFACE panel

The entire bracket can be shifted out of the cabinet by lifting the release finger at the bottom side of the bracket with a screwdriver and then pulling backwards the entire bracket (5). By then the bracket with the TXT and TXT interface panel in it can be laid on the left side (seen from the back) while still connected to the main carrier.

Also the TXT and the TXT interface panel can be easily clicked out of the panel by releasing the 2 catching fingers on the top and the back part of the bracket.

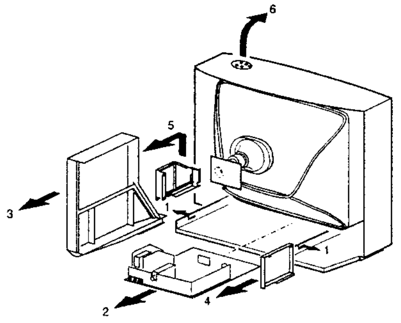
Service position TOP CONTROL panel

The top control panel can be taken out of the cabinet by first smoothly releasing the click fit on the left under side of the top control bracket (seen from the back) with a small plier. By then "turn" out the bracket with the panel out of the cabinet (6).

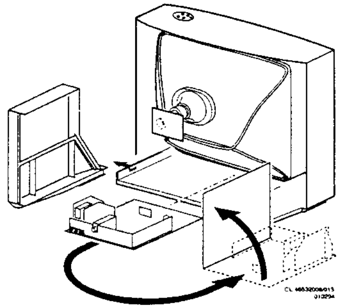
Service position LED + IR panel and HEADPHONE panel

First pull out the main carrier. Then srew out the 2 fixation screws of the LED +IR and headphone bracket. By then pull backwards the bracket with the extended handgrip.

Also the LED + IR panel and the HEADPHONE panel can be easily clicked out of it's bracket by releasing the clicks.

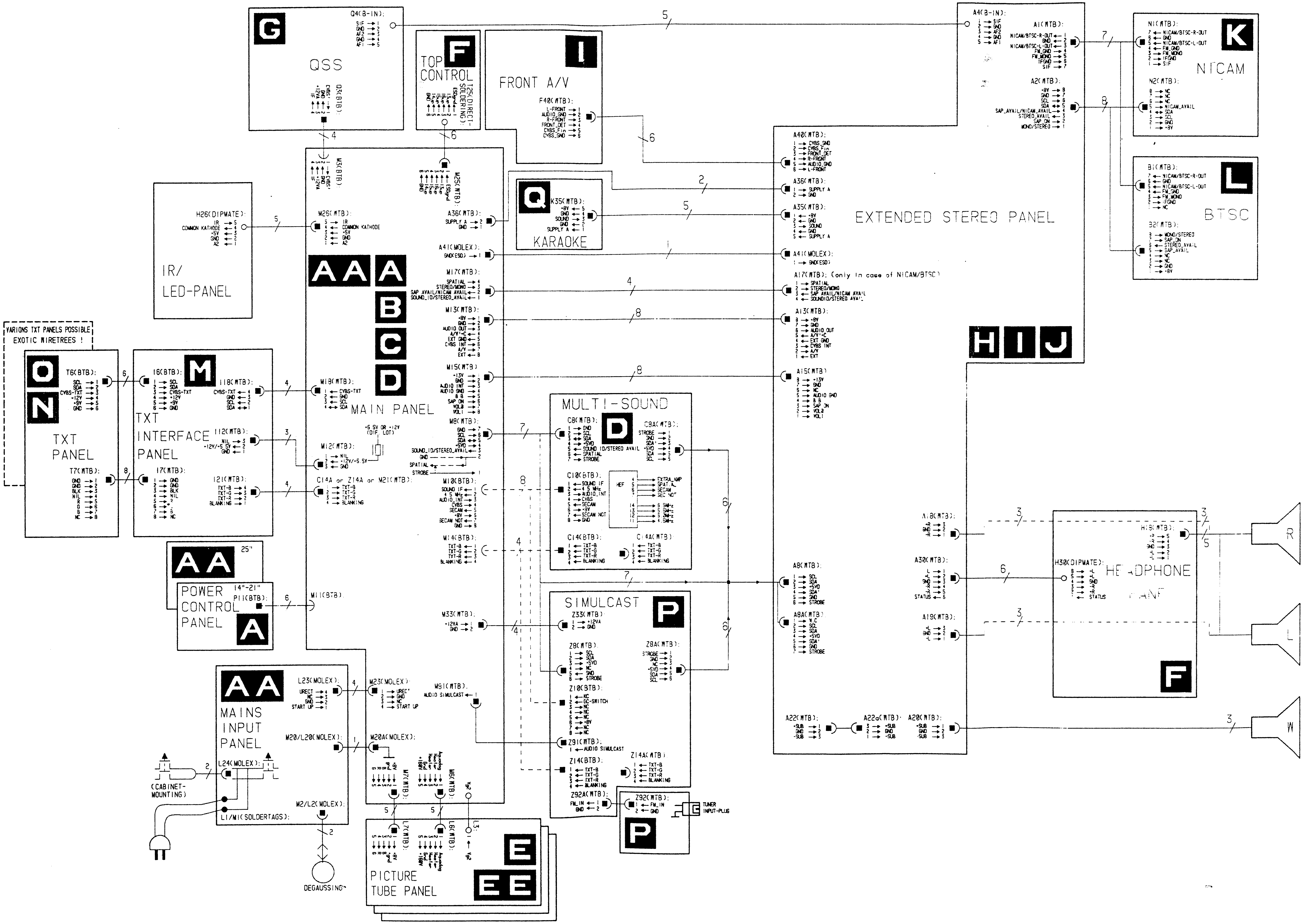


A



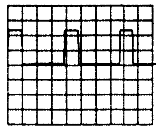
B

5. Wiring diagram / Esquema del circuito eléctrico


G
QSS
Q4(B-IN)
Q3(BTB)
F
TOP CONTROL
T25(DIRECT-SOLDERING)
I
FRONT A/V
F40(MTB)
L-FRONT
AUDIO_GND
R-FRONT
FRONT_DET
CVBS_Fin
CVBS_GND
Q
K35(MTB)
KARAOKE
A4(B-IN)
A1(MTB)
A2(MTB)
K
NICAM
N1(MTB)
N2(MTB)
L
BTSC
B1(MTB)
B2(MTB)
IR/
LED-PANEL
H26(DIPMATE)
M35(BTB)
M25(MTB)
M26(MTB)
A36(MTB)
A41(MOLEX)
M17(MTB)
M13(MTB)
M15(MTB)
M18(MTB)
M12(MTB)
M8(MTB)
M10(BTB)
M14(BTB)
M33(MTB)
M11(BTB)
AAA
A
B
C
D
MAIN PANEL
EXTENDED STEREO PANEL
A40(MTB)
A36(MTB)
A35(MTB)
A41(MOLEX)
A17(MTB): (only in case of NICAM/BTSC)
A13(MTB)
A15(MTB)
A8(MTB)
A8A(MTB)
H
I
J
VARIONS TXT PANELS POSSIBLE
EXOTIC WIRETREES !
O
N
TXT PANEL
T6(BTB)
T7(MTB)
M
TXT INTERFACE PANEL
I6(BTB)
I18(MTB)
I12(MTB)
I7(MTB)
I21(MTB)
C14A or Z14A or M21(MTB)
MULTI-SOUND
D
C8(MTB)
C8A(MTB)
C10(BTB)
C14(BTB)
C14A(MTB)
SIMULCAST
P
Z33(MTB)
Z8(MTB)
Z8A(MTB)
Z10(BTB)
Z91(BTB)
Z14(BTB)
Z14A(MTB)
Z92A(MTB)
Z92(MTB)
TUNER INPUT-PLUG
AA
25"
POWER CONTROL PANEL
14"-21"
P11(BTB)
A
AA
MAINS INPUT PANEL
L23(MOLEX)
M20/L20(MOLEX)
L24(MOLEX)
M2/L2(MOLEX)
L1/M1(SOLDERTAGS)
(CABINET-MOUNTING)
DEGAUSSING
M23(MOLEX)
M91(MTB)
M20A(MOLEX)
M7(MTB)
M6(MTB)
E
PICTURE TUBE PANEL
L7(MTB)
L6(MTB)
L3
EE
A18(MTB)
A30(MTB)
A19(MTB)
H30(DIPMATE)
H18(MTB)
HEADPHONE PANEL
F
R
L
W
A22(MTB)
A22a(MTB)
A20(MTB)

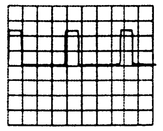
Overview oscillograms / Sumario de oscilogramas

TP1



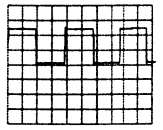
T=5us
Δv=2v

TP2



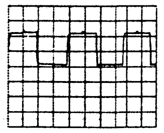
T=5us
Δv=2v

TP3



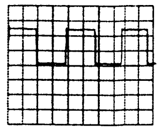
T=5us
Δv=2v

TP4



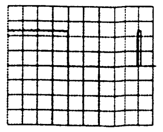
T=5us
Δv=2v

TP5



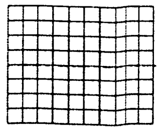
T=5us
Δv=2v

TP6



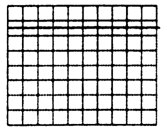
T=20ms
Δv=2v

TP7



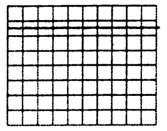
T=20ms
Δv=2v

TP8



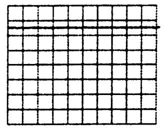
T=20ms
Δv=2v

TP9



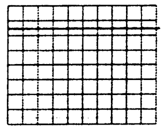
T=20ms
Δv=2v

TP10



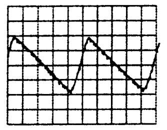
T=20ms
Δv=2v

TP11



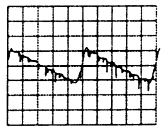
T=20ms
Δv=2v

TP12.21" ⏼



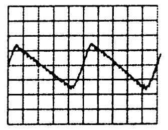
2V/div AC
2ms div

TP12.21" ⏻



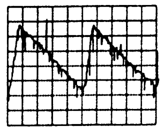
0,5V/div AC
2ms div

TP12.25" ⏼



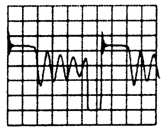
2V/div AC
2ms div

TP12.25" ⏻



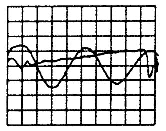
0,2V/div AC
2ms div

TP13.21" ⏼



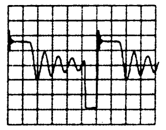
100V/div AC
5µs div

TP13.21" ⏻



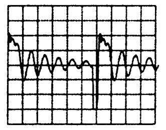
0,1V/div AC
1µs div

TP13.25" ⏼



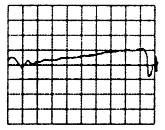
100V/div AC
5µs div

TP13.25" ⏻



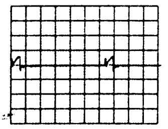
100V/div AC
5µs div

TP14.21" ⏼



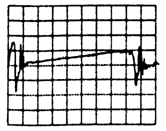
1V/div AC
0,5µs div

TP14.21" ⏻



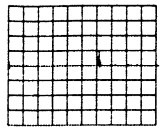
1V/div AC
5µs div

TP14.25" ⏼



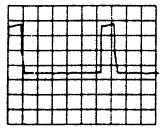
1V/div AC
0,5µs div

TP14.25" ⏻



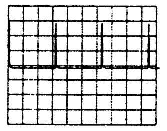
1V/div AC
0,5µs div

TP15.21" ⏼



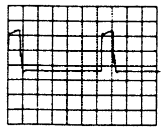
5V/div AC
5µs div

TP15.21" ⏻



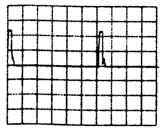
5V/div AC
10µs div

TP15.25" ⏼



5V/div AC
5µs div

TP15.25" ⏻

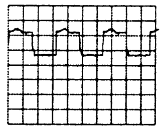


5V/div AC
5µs div

TP16.21" = DC 18V ⏼
TP16.21" = DC 17V5 ⏻
TP16.25" = DC 14V8 ⏼
TP16.25" = DC 14V5 ⏻

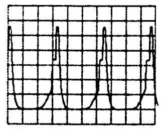
TP17.21" = DC 2V5 ⏼
TP17.21" = DC 2V5 ⏻
TP17.25" = DC 2V5 ⏼
TP17.25" = DC 2V5 ⏻
TP18.21" = DC 6V ⏼
TP18.21" = DC 6V ⏻
TP18.25" = DC 5V1 ⏼
TP18.25" = DC 5V1 ⏻
TP19.21" = DC 13V ⏼
TP19.21" = DC 13V ⏻
TP19.25" = DC 14V7 ⏼
TP19.25" = DC 14V5 ⏻
TP20.21" = DC 116V ⏼
TP20.21" = DC 122V ⏻
TP20.25" = DC 114V ⏼
TP20.25" = DC 126V ⏻

TP21



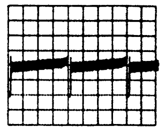
0,5V/div AC
20µs div

TP22



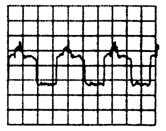
2V/div AC
20µs div

TP23



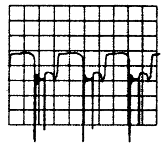
2V/div AC
5ms div

TP24



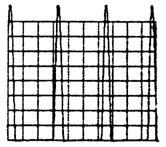
0,2V/div AC
20µs div

TP25



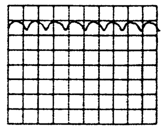
1V/div AC
20µs div

TP26



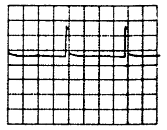
100V/div AC
20µs div

TP27



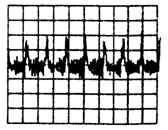
T=50us
Δv=5v

TP28



T=5ms
Δv=10v

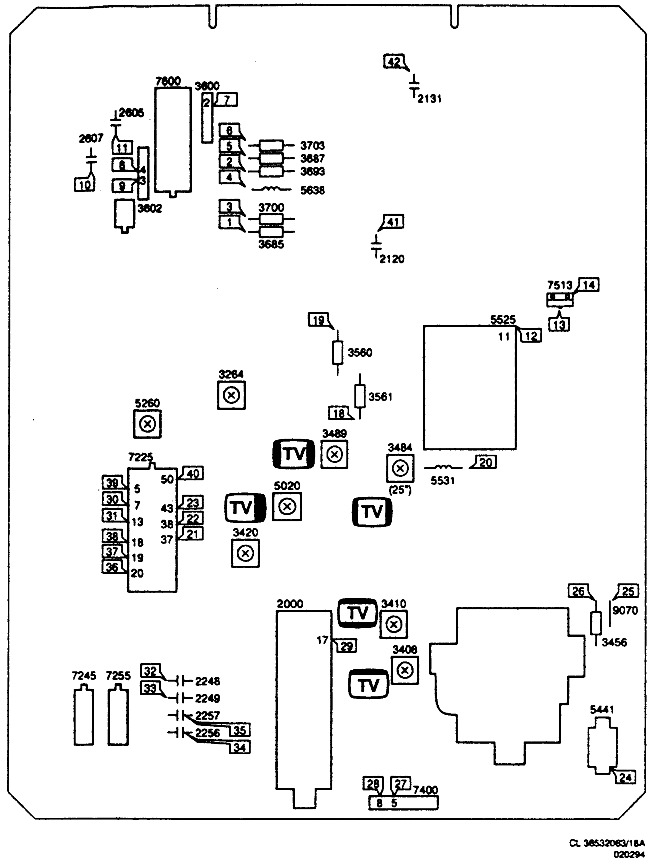
TP29



T=5ms
Δv=10v

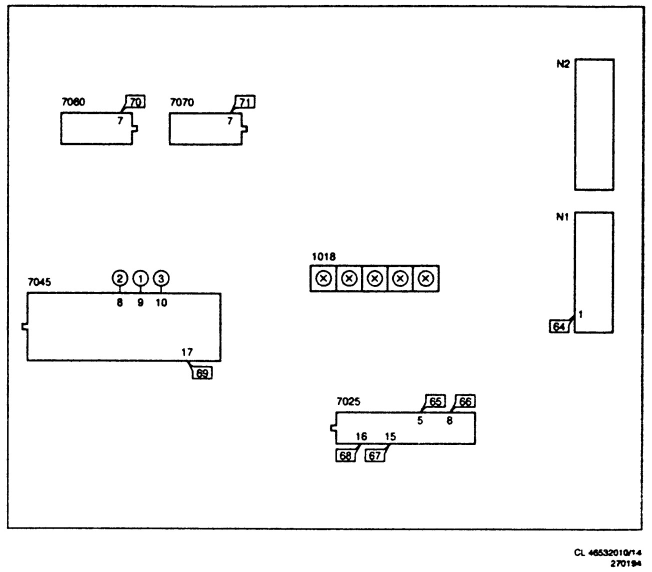
Survey of testpoints / Puntos de prueba

MAIN CARRIER (component side)



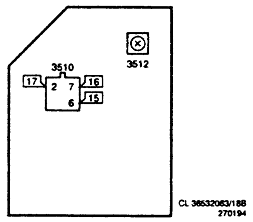
TV
3264
5260
3489
3484
5020
3420
3410
3408
2000
7400
7225
7245
7255
5525
5531
5441
9070
3456
CL 38532063/18A
020294

NICAM (copper side)



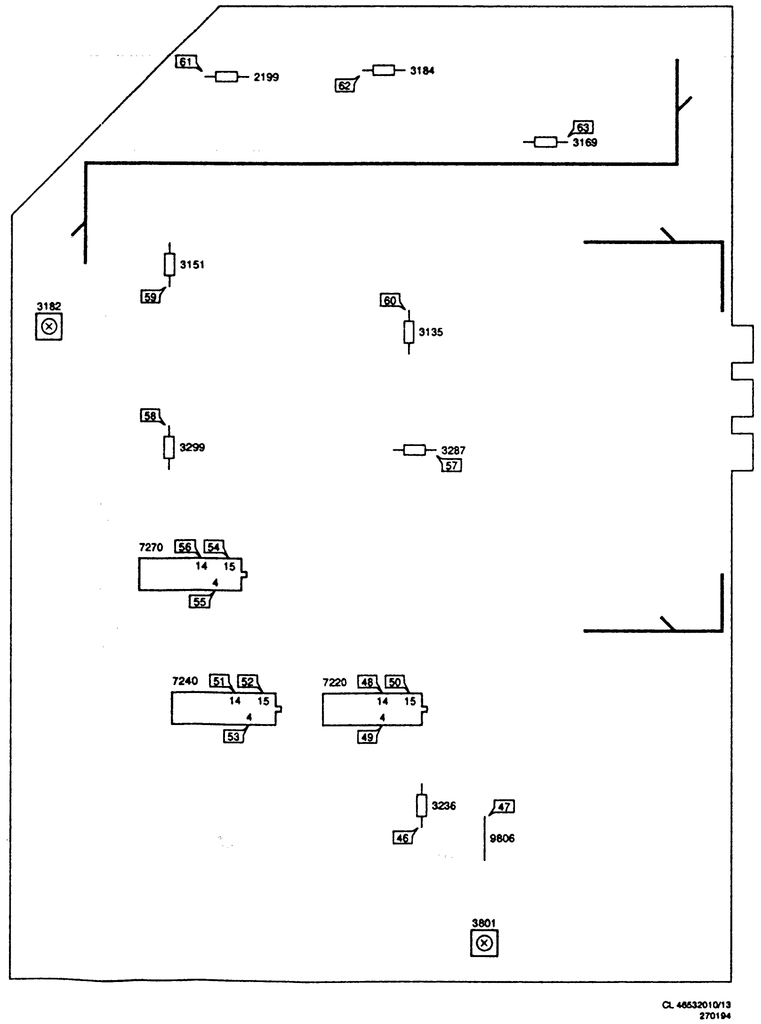
7060
7070
7045
7025
1018
N2
N1
CL 46532010/14
270194

POWER SUPPLY
CONTOL PANEL



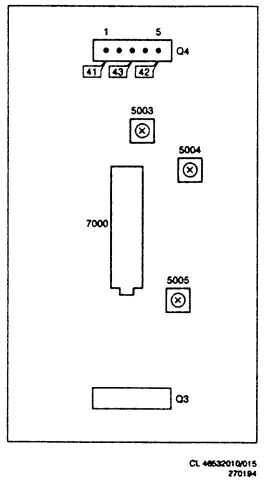
3510
3512
CL 38532063/18B
270194

2CS + I/O + amplification panel (copper side)



2199
3184
3169
3151
3182
3135
3299
3287
7270
7240
7220
3236
9806
3801
CL 46532010/13
270194

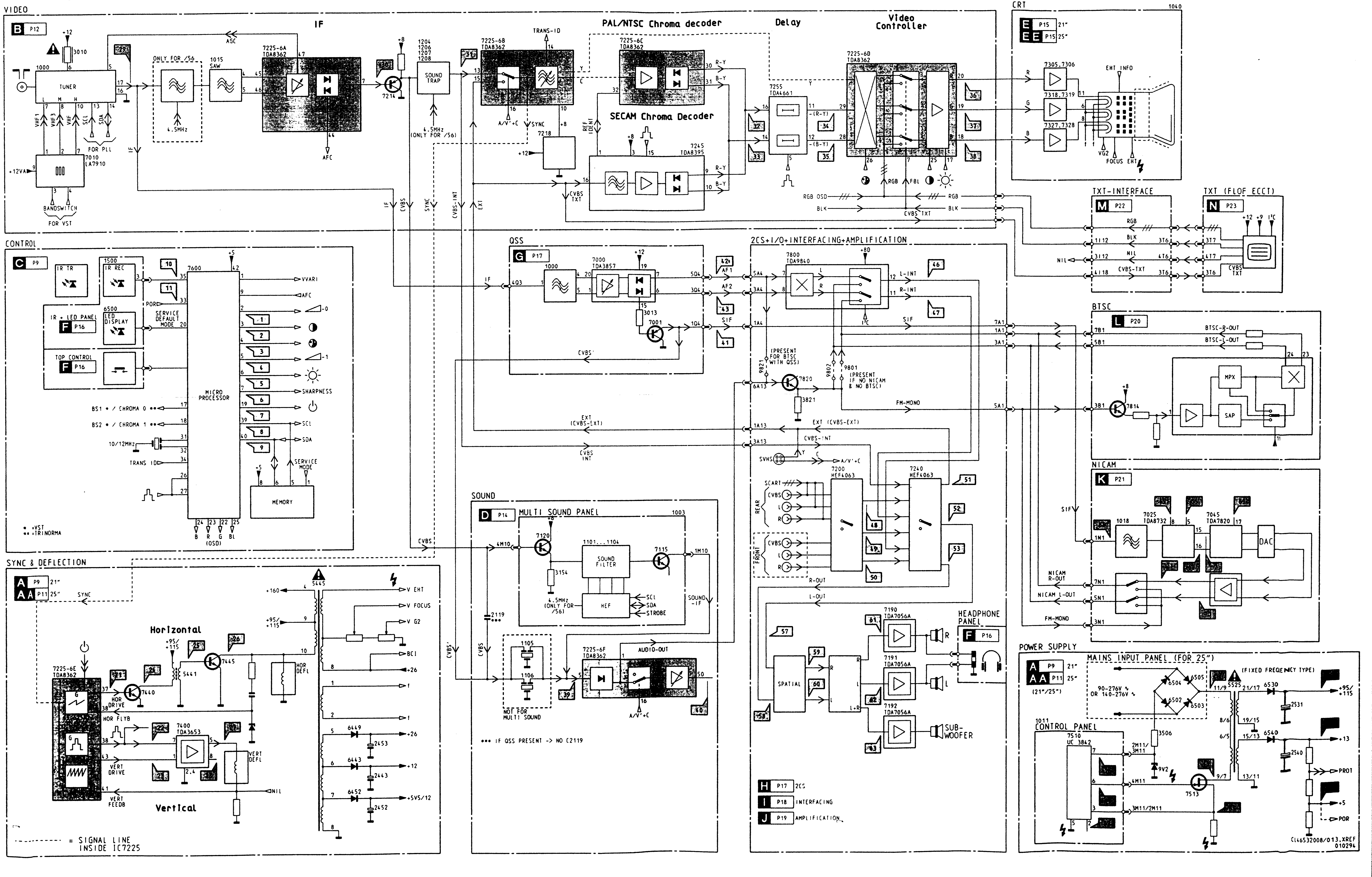
QSS (component side)



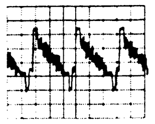
Q4
5003
5004
7000
5005
Q3
CL 46532010/015
270194

Block diagram / Diagrama de bloques

Block diagram / Diagrama de bloques

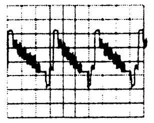

VIDEO
B P12
IF
PAL/NTSC Chroma decoder
Delay
Video Controller
CRT
1040
E P15 21"
E E P15 25"
TUNER
1000
3010
ONLY FOR /56
1015 SAW
4.5MHz
7225-6A TDA8362
AGC
AFC
7214
1204 1206 1207 1208
SOUND TRAP
4.5MHz (ONLY FOR /56)
7225-6B TDA8362
TRANS-ID
A/V'+C
SYNC
7218
7225-6C TDA8362
SECAM Chroma Decoder
7245 TDA8395
REF IDENT
R-Y
B-Y
CVBS TXT
7255 TDA4661
-(R-Y)
-(B-Y)
7225-6D TDA8362
RGB
FBL
RGB OSD
BLK
CVBS TXT
7305,7306
7318,7319
7327,7328
EHT INFO
VG2
FOCUS
EHT
VHF1
VHF3
UHF
SCL
SDA
FOR PLL
7010 LA7910
+12VA
BANDSWITCH
FOR VST
IF
CVBS
SYNC
CVBS-INT
EXT
TXT-INTERFACE
M P22
TXT (FLOF ECCT)
N P23
RGB
BLK
NIL
CVBS-TXT
CVBS TXT
CONTROL
C P9
IR TR
1500 IR REC
10
11
7600
PORD
IR + LED PANEL
F P16
6500 LED DISPLAY
SERVICE DEFAULT MODE
TOP CONTROL
F P16
VVARI
AFC
SHARPNESS
SCL
SDA
MICRO PROCESSOR
BS1 • / CHROMA 0
BS2 • / CHROMA 1
10/12MHz
TRANS ID
SERVICE MODE
MEMORY
B R G BL (OSD)
• +VST
•• +TRINORMA
QSS
G P17
1000
7000 TDA3857
3013
7001
AF1
AF2
SIF
CVBS'
2CS+I/O+INTERFACING+AMPLIFICATION
7800 TDA9840
L-INT
R-INT
I²C
SIF
(PRESENT FOR BTSC WITH QSS)
9821
7820
9802
9801 (PRESENT IF NO NICAM & NO BTSC)
3821
FM-MONO
EXT (CVBS-EXT)
CVBS-INT
SVHS
A/V'+C
7200 HEF4063
7240 HEF4063
SCART
REAR
FRONT
R-OUT
L-OUT
BTSC
L P20
BTSC-R-OUT
BTSC-L-OUT
MPX
SAP
7814
NICAM
K P21
1018
7025 TDA8732
7045 TDA7820
DAC
NICAM R-OUT
NICAM L-OUT
FM-MONO
SOUND
D P14
MULTI SOUND PANEL
1003
7120
1101...1104
SOUND FILTER
7115
3154
4.5MHz (ONLY FOR /56)
HEF
SCL
SDA
STROBE
SOUND-IF
2119
1105
1106
NOT FOR MULTI SOUND
7225-6F TDA8362
AUDIO-OUT
A/V'+C
••• IF QSS PRESENT -> NO C2119
SYNC & DEFLECTION
A P9 21"
A A P11 25"
SYNC
Horizontal
7225-6E TDA8362
HOR DRIVE
HOR FLYB
7440
5441
7445
HOR DEFL
7400 TDA3653
VERT DRIVE
VERT FEEDB
VERT DEFL
Vertical
NIL
5445
+160
+95/ +115
V EHT
V FOCUS
V G2
BCI
+26
6449
2453
6443
2443
+12
6452
2452
+5V5/12
= SIGNAL LINE INSIDE IC7225
7190 TDA7056A
7191 TDA7056A
7192 TDA7056A
SPATIAL
SUB-WOOFER
HEADPHONE PANEL
F P16
H P17 2CS
I P18 INTERFACING
J P19 AMPLIFICATION
POWER SUPPLY
MAINS INPUT PANEL (FOR 25")
A P9 21"
A A P11 25"
(21"/25")
90-276V ∿ OR 140-276V ∿
(FIXED FREQENCY TYPE)
6504
6505
6502
6503
5525
6530
2531
+95/ +115
6540
2540
+13
PROT
+5
POR
1011 CONTROL PANEL
7510 UC 3842
3506
9V2
7513
CL46532008/013.XREF 010294

TP30



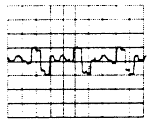
T=20us
Δv=0v5 AC

TP31



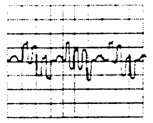
T=20us
Δv=0v5 AC

TP32



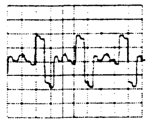
T=20us
Δv=0v2 AC

TP33



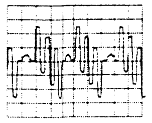
T=20us
Δv=0v2 AC

TP34



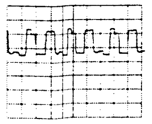
T=20us
Δv=0v2 AC

TP35



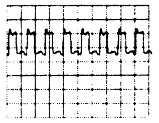
T=20us
Δv=0v2 AC

TP36



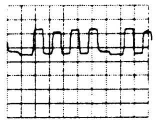
T=20us
Δv=1v

TP37



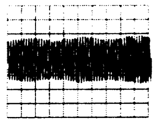
T=50us
Δv=1v

TP38



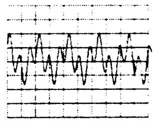
T=10us
Δv=1v

TP39



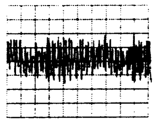
0,2V/div AC
1µs div

TP40



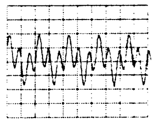
0,5V/div AC
0,5ms div

TP41



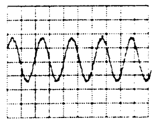
0,2V/div AC
10µs div

TP42



0,5V/div AC
0,5ms div

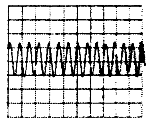
TP43



0,5V/div AC
0,5ms div

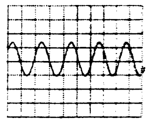
Overview oscillograms / Sumario de oscilogramas

TP46



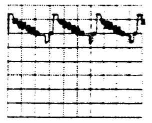
0,5V/div AC
0,5ms div

TP47



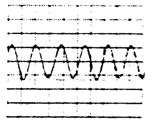
0,5V/div AC
0,5ms div

TP48



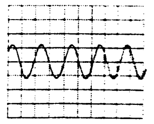
0,5V/div AC
0,5ms div

TP49



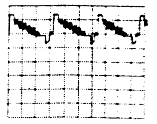
0,5V/div AC
0,5ms div

TP50



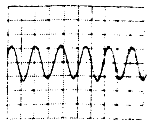
0,5V/div AC
0,5ms div

TP51



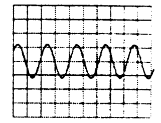
0,5V/div AC
0,5ms div

TP52



0,5V/div AC
0,2ms div

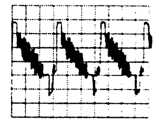
TP53



0,5V/div AC
0,5ms div

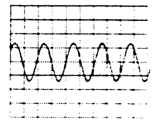
TP54 = DC 4,5V

TP55



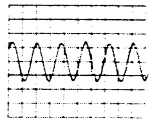
0,2V/div AC
20µs div

TP56



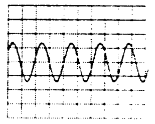
0,5V/div AC
0,5ms div

TP57



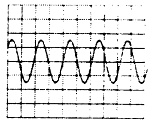
0,5V/div AC
0,2ms div

TP58



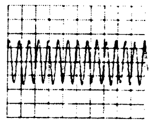
0,5V/div AC
0,5ms div

TP59



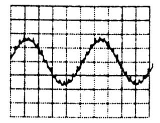
0,5V/div AC
0,5ms div

TP60



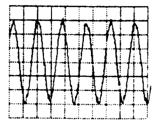
0,5V/div AC
0,5ms div

TP61



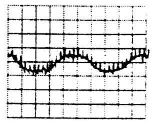
0,1V/div AC
0,2ms div

TP62



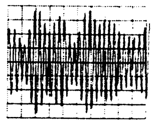
0,1V/div AC
0,2ms div

TP63



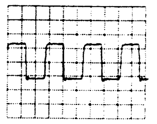
50mV/div AC
0,2ms div

TP64



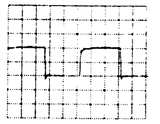
0,1V/div AC
0,5µs div

TP67



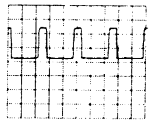
2V/div AC
0,5µs div

TP68



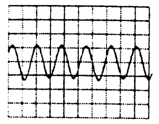
2V/div AC
0,5µs div

TP69



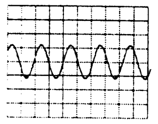
2V/div DC
20µs div

TP70



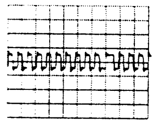
0,5V/div AC
0,2ms div

TP71



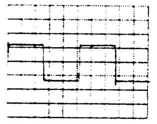
0,5V/div AC
0,5ms div

①



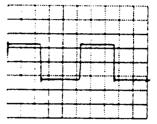
5V/div AC
0,5µs div

②



2V/div AC
0,5µs div

③



5V/div AC
0,5µs div

6. Carrier panel 21" / Panel principal 21"

0024	A2
0025	A4
1000	F3
1015	D4
1105	C5
1106	C5
1204	C5
1206	C5
1207	C5
1208	C5
1275	E4
1277	E4
1278	E4
1279	E4
1449	F2
1500	A1
1540	C3
1602	A5
1630	A4
2001	D3
2002	F4
2007	E3
2008	F4
2009	F4
2010	F4
2016	D3
2017	D3
2026	D3
2027	D3
2101	D5
2102	D5
2103	D5
2104	D4
2105	C3
2110	C3
2112	D5
2119	C5
2120	B3
2121	B3
2122	B3
2123	D5
2124	B3
2125	A3
2127	A3
2128	C3
2129	A3
2130	C3
2131	A3
2138	E5
2200	C5
2208	D5
2212	E5
2213	D4
2219	D5
2220	D5
2221	D5
2222	D4
2223	C4
2224	D5
2225	D5
2228	D5
2236	F5
2243	F5
2245	F5
2246	F5
2248	E4
2249	F4
2251	E5
2253	F4
2254	F4
2256	F4
2257	F4
2260	C5
2261	D4
2262	F4
2264	C4
2265	D4
2272	E4
2273	E4
2275	E4
2277	E4
2278	E4
2279	E4
2280	E5
2281	E4
2282	D5
2283	E5
2284	E5
2285	E5
2286	E5
2287	E5
2288	E5
2401	F2
2402	F3
2403	F2
2404	E2
2405	E3
2414	F2
2415	F3
2416	F3
2420	E4
2421	D4
2422	D4
2423	D4
2424	D4
2425	E4
2426	D4
2427	D4
2428	F4
2439	F1
2440	F1
2441	E2
2442	F1
2443	D2
2444	F1
2445	D1
2446	D1
2447	E2
2448	D2
2449	F2
2450	D1
2452	E2
2453	F2
2454	E2
2455	D1
2456	F1
2457	E1
2457	E1
2458	E2
2460	F2
2470	F1
2472	F1
2500	A1
2501	A2
2502	B2
2503	B2
2504	B2
2505	B1
2509	C1
2513	C1
2520	D2
2521	C1
2523	D2
2525	B2
2526	C2
2527	B1
2528	D1
2530	D3
2531	D2
2540	C3
2541	C2
2561	D3
2603	A5
2604	B5
2605	B5
2606	B4
2607	B5
2608	A3
2610	A3
2615	A3
2621	B4
2624	A3
2625	B5
2626	A4
2627	A4
2628	A4
2636	C3
2638	A5
2640	A5
2648	C3
2656	C3
2682	B3
2683	A3
2685	B3
2687	B4
2688	B3
2692	B3
2695	B3
2700	B4
2703	B4
2711	B5
2714	A5
2721	B5
2722	A5
2726	A5
2727	A5
2728	A5
3000	E3
3003	D3
3004	C3
3005	C3
3010	F4
3016	E3
3017	E3
3018	E3
3019	D3
3106	D5
3113	C4
3121	C3
3122	B3
3123	B3
3124	B3
3125	B3
3126	B3
3127	A3
3128	B3
3129	B3
3130	D5
3136	D5
3137	F5
3138	E5
3139	F5
3140	F5
3141	F5
3142	B3
3143	B3
3144	F5
3200	C5
3201	C5
3202	C5
3203	C5
3204	C5
3205	C5
3206	C5
3207	E5
3208	D5
3209	D5
3210	D4
3211	C5
3212	D4
3213	D4
3214	D5
3225	C5
3236	E5
3239	C5
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3245	E4
3250	F5
3251	E5
3252	F5
3253	F4
3254	F4
3255	E5
3256	E5
3257	E5
3259	D5
3260	D5
3261	E3
3262	E3
3263	C4
3264	C4
3265	D3
3267	B5
3268	B5
3270	C5
3271	B5
3273	E4
3275	E4
3276	E4
3277	E4
3278	E4
3279	E4
3283	C3
3284	E5
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3403	F2
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3405	F2
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3407	E3
3408	E3
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3452	E2
3453	D1
3454	D1
3456	E1
3460	F2
3470	F2
3500	A2
3501	A2
3502	A2
3503	B2
3503	B2
3504	B1
3505	B2
3505	B2
3506	B2
3507	C1
3519	C1
3520	D2
3521	B1
3522	C1
3525	C2
3526	C2
3560	C3
3561	C3
3562	D3
3563	D3
3565	D3
3597	A1
3598	A1
3599	A1
3600	A4
3601	B4
3602	B4
3603	A5
3604	A5
3605	A4
3606	C4
3607	B5
3608	A3
3609	A3
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3611	A3
3612	C4
3617	A3
3622	A4
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3634	A4
3635	A5
3636	C3
3637	A4
3638	A5
3640	A5
3641	A5
3642	A4
3643	A5
3646	B4
3647	B4
3648	C4
3649	C3
3650	D3
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3653	B4
3654	C4
3656	C3
3661	A4
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3700	B4
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3707	A4
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3713	C4
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3717	B5
3718	B5
3719	B4
3720	C4
3721	C4
3726	A5
3727	A5
3728	A5
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5014	D4
5020	D3
5100	D5
5112	D5
5206	C5
5209	D5
5260	D4
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5288	E5
5424	E4
5440	F1
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5443	E2
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5449	F2
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5532	D3
5533	D2
5540	C2
5543	C3
5620	B4
5621	B4
5622	B4
5711	B5
5720	A5
6016	E3
6108	F5
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6110	B3
6111	B3
6254	F4
6280	E5
6283	C3
6284	E4
6286	E5
6287	E5
6288	E5
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6420	E4
6423	D4
6425	D4
6426	D4
6427	D4
6428	C4
6439	F1
6440	F1
6441	F2
6443	E3
6445	E1
6446	D2
6447	E1
6449	F2
6452	E2
6455	F1
6470	F1
6500	B2
6506	C1
6507	A1
6508	A1
6512	C1
6513	C1
6519	C1
6520	D2
6526	C1
6529	D2
6530	D3
6531	D2
6540	C2
6542	B3
6562	D3
6565	D3
6605	A5
6606	B5
6607	B5
6618	C3
6620	A3
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6690	B4
6694	C4
6697	C4
6715	A5
6726	A5
6727	A5
6728	A5
7000	D3
7109	D3
7120	B3
7124	A3
7212	C5
7213	C5
7214	C5
7215	C3
7216	C5
7217	C5
7218	F4
7225	D4
7240	C5
7245	F5
7255	F5
7269	C5
7270	B5
7277	E4
7278	E4
7279	E4
7400	F2
7423	C4
7439	F1
7440	F1
7445	E1
7513	C1
7563	D3
7600	B4
7634	A4
7635	A5
7636	C3
7637	C4
7638	A4
7647	B4
7710	B5
9002	D3
9004	D3
9005	D3
9015	E3
9018	E3
9019	E2
9020	F4
9025	E4
9027	F4
9029	F5
9030	D3
9031	D5
9032	E5
9033	D5
9034	F4
9035	E4
9036	B3
9037	C4
9038	B3
9039	C5
9040	E5
9041	D4
9042	F4
9050	D5
9051	C3
9053	C5
9056	E5
9058	C4
9060	C3
9061	D3
9062	A5
9065	B5
9066	C4
9067	C4
9069	B4
9070	E1
9071	B4
9072	C4
9073	C4
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9078	B5
9080	C4
9082	C5
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9087	F4
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9089	C4
9090	D5
9091	C4
9092	C3
9093	C4
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9095	C4
9096	B5
9097	B4
9099	D5
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9282	C4
9283	C4
9286	E5
9287	E5
9288	E5
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9416	F3
9440	F1
9441	D3
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9445	F1
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9560	C3
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9601	A4
9604	A5
9605	A5
9607	B5
9610	A5
9612	C4
9613	A3
9614	A2
9615	A2
9616	A4
9617	A2
9620	A3
9621	A3
9622	A3
9623	A3
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9643	A5
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9656	C3
9670	B4
9671	B4
9691	B4
9694	C4
9695	C4
9696	C4
9697	C4
9704	B4
9726	A5
9727	A5
9728	A5
M1	B1
M2	B2
M3	E3
M4	F3
M5	D1
M6	F2
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M8	B5
M9	F5
M10	C5
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M12	D3
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M14	E5
M15	C3
M16	F5
M17	B5
M18	B5
M19	A3
M20	D1
M20A	E3
M21	A5
M25	A2
M26	A5
M28	A4
M29	A4
M31	B5
M32	C5
M33	F4
M36	E2
M36A	E2
M40	D2
M41	F4
M42	D1
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M50A	C5
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M62	A4
M62A	B3
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M70A	E3
M76	B5
M76A	E5
M78	D3
M78A	F2
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M80A	C2
M82	A4
M82A	A5
M83	C3
M83A	E3
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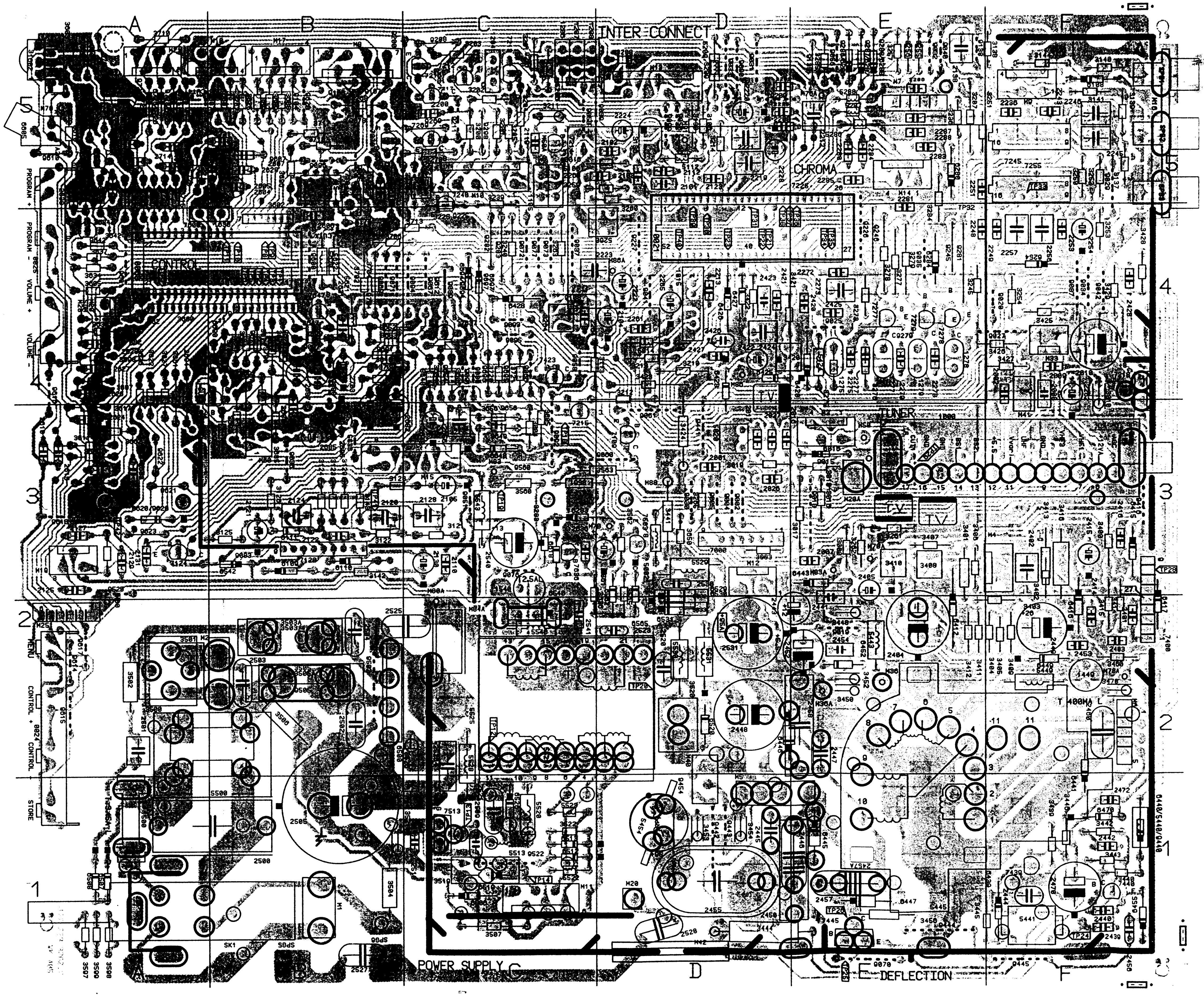
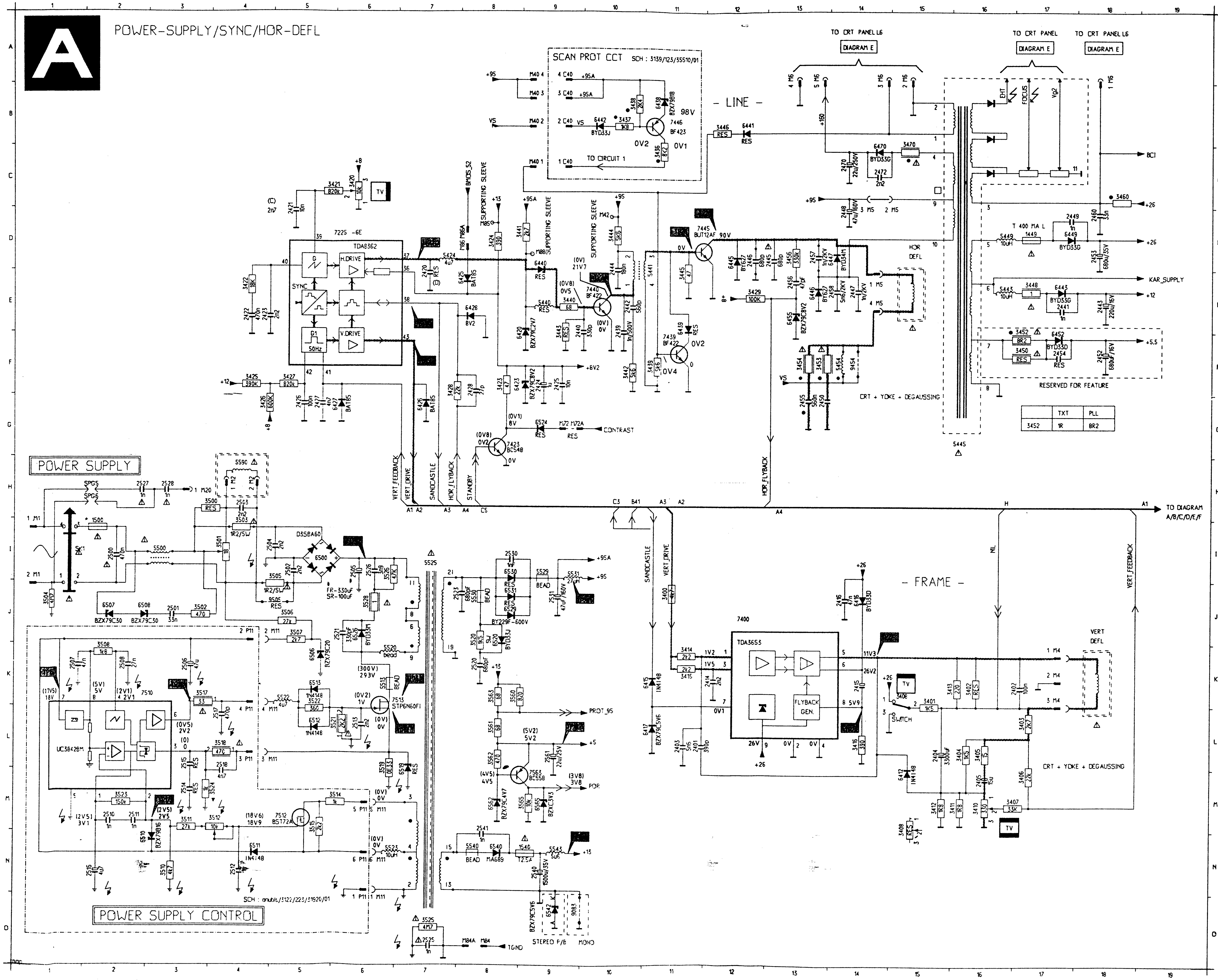
M86	D4
M86A	D4
M88	D3
M91	D5
SK1	B1



Power supply + Synchronisation + Deflection 21"

Fuente de alimentación + Sincronización + Deflexión 21"


A
POWER-SUPPLY/SYNC/HOR-DEFL
SCAN PROT CCT SCH : 3139/123/35510/01
- LINE -
- FRAME -
TO CRT PANEL L6
DIAGRAM E
TO CRT PANEL
TDA8362
TDA3653
TDA3653 7400
FLYBACK GEN.
BUT12AF
BF422
BF423
BC548
BC558
STP6N60FI
BST72A
UC3842BM
D3SBA60
POWER SUPPLY
POWER SUPPLY CONTROL
SCH : anubis/3122/223/31920/01
HOR DEFL
VERT DEFL
CRT + YOKE + DEGAUSSING
RESERVED FOR FEATURE
KAR_SUPPLY
TO DIAGRAM A/B/C/D/E/F
VERT_FEEDBACK
VERT_DRIVE
SANDCASTLE
HOR_FLYBACK
STANDBY
SUPPORTING SLEEVE
CONTRAST
PROT_9S
POR
STEREO F/B
MONO
SWITCH
TV
EHT
FOCUS
Vg2
+95
+26
+12
+5.5
+13
+5
+8
TGND

	TXT	PLL
3452	1R	BR2

1449	D17
1500	I 2
1540	N 9
2401	L11
2402	K17
2403	L11
2404	L15
2405	M16
2414	K12
2415	K14
2416	J14
2420	E 7
2421	D 5
2422	E 4
2423	E 4
2424	F 9
2425	F 9
2426	G 5
2427	G 5
2428	F 8
2439	E10
2440	E 9
2441	E17
2442	E10
2443	E16
2444	D10
2445	D13
2446	D12
2447	E14
2448	D14
2449	D17
2450	G13
2452	F18
2453	D18
2454	F17
2455	G13
2456	E13
2457	D13
2458	E14
2460	D18
2470	C14
2472	C14
2500	I 2
2501	J 3
2502	I 5
2503	H 4
2504	I 4
2505	I 6
2506	K 3
2507	K 1
2508	K 2
2510	M 2
2511	M 2
2512	N 4
2513	L 6
2514	M 3
2515	L 3
2516	N 2
2517	L 4
2518	L 4
2520	K 8
2521	J 6
2523	J 7
2525	O 7
2526	I 6
2527	H 2
2528	H 3
2530	I 8
2531	J 9
2540	N 9
2541	M 8
2561	L 9
3400	J11
3401	K15
3402	K16
3403	L17
3404	L16
3405	L16
3406	M17
3407	M17
3408	M15
3408	K15
3410	M16
3411	M16
3412	M15
3413	K16
3414	K11
3415	K11
3416	L14
3420	C 6
3421	C 5
3422	E 4
3423	F 8
3424	D 8
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3426	G 4
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3437	B10
3438	B10
3439	F11
3440	E 9
3441	D 8
3442	F10
3443	E 9
3444	D10
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3448	E17
3450	F17
3452	E17
3453	F13
3454	F13
3456	D13
3460	C18
3470	B15
3500	H 4
3501	I 4
3502	J 3
3503	I 4
3504	J 1
3505	I 5
3506	J 5
3507	J 5
3508	K 2
3510	N 3
3511	M 3
3512	M 4
3514	M 6
3515	M 5
3517	K 3
3518	L 4
3519	L 6
3520	J 8
3521	L 6
3522	K 5
3523	M 2
3524	M 4
3525	O 7
3526	I 6
3528	J 6
3560	K 8
3561	L 8
3562	L 8
3563	K 8
3565	M 9
5424	D 7
5440	E 9
5441	D11
5443	E16
5445	G16
5449	D16
5454	F14
5500	I 3
5513	K 6
5520	K 6
5522	K 5
5523	N 6
5525	I 7
5529	I 9
5530	J 8
5531	I 9
5540	N 8
5543	N 9
6412	M15
6415	K11
6416	J14
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6428	E 8
6438	B11
6439	E11
6440	D 9
6441	B12
6442	B10
6443	E17
6445	D12
6446	E13
6447	D14
6449	D17
6452	F17
6455	E13
6470	C14
6500	I 5
6506	K 5
6507	J 2
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6510	N 2
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6531	J 8
6540	N 8
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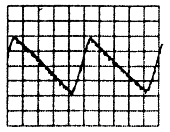
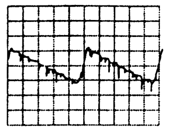
6565	M 9
7225	D 5
7400	J12
7423	G 8
7439	F11
7440	E10
7445	D11
7446	B11
7510	K 2
7512	M 5
7513	K 6
7563	M 9
9083	O 9
9454	F14
9505	J 5
C40	C 9
C40	B 9
C40	B 9
C40	A 9
M1	I 1
M1	I 1
M11	O 6
M11	J 4
M11	L 5
M11	L 5
M11	M 6
M11	N 6
M2	H 4
M2	H 4
M20	H 3
M4	K17
M4	K17
M4	K17
M40	C 9
M40	B 9
M40	B 9
M40	A 9
M42	D10
M5	E14
M5	D14
M5	D14
M5	E14
M6	A18
M6	A15
M6	A14
M6	A13
M6	A13
M72	G 9
M72A	G 9
M84	O 8
M84A	O 8
M85	D 8
M86	D 8
M86A	D 8
M88	D 9
P11	O 6
P11	J 4
P11	L 4
P11	L 4
P11	M 6
P11	N 6
SK1	I 1
SPG5	H 2
SPG6	H 2

TP12.21" ⏼



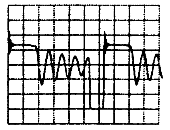
2V/div AC
2ms div

TP12.21" ⏻



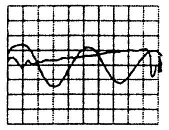
0,5V/div AC
2ms div

TP13.21" ⏼



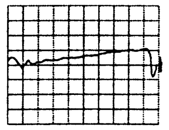
100V/div AC
5µs div

TP13.21" ⏻



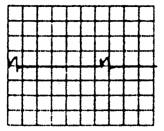
0,1V/div AC
1µs div

TP14.21" ⏼



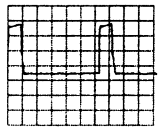
1V/div AC
0,5µs div

TP14.21" ⏻



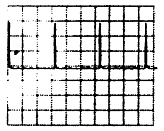
1V/div AC
5µs div

TP15.21" ⏼



5V/div AC
5µs div

TP15.21" ⏻



5V/div AC
10µs div

TP16.21" = DC 18V ⏼

TP16.21" = DC 17V5 ⏻

TP17.21" = DC 2V5 ⏼

TP17.21" = DC 2V5 ⏻

TP18.21" = DC 6V ⏼

TP18.21" = DC 6V ⏻

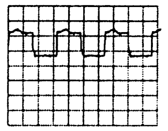
TP19.21" = DC 13V ⏼

TP19.21" = DC 13V ⏻

TP20.21" = DC 116V ⏼

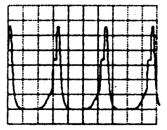
TP20.21" = DC 122V ⏻

TP21



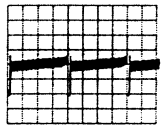
0,5V/div AC
20µs div

TP22



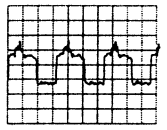
2V/div AC
20µs div

TP23



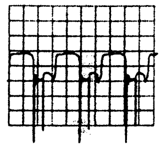
2V/div AC
5ms div

TP24



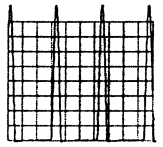
0,2V/div AC
20µs div

TP25



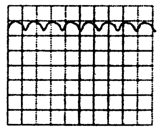
1V/div AC
20µs div

TP26



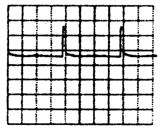
100V/div AC
20µs div

TP27



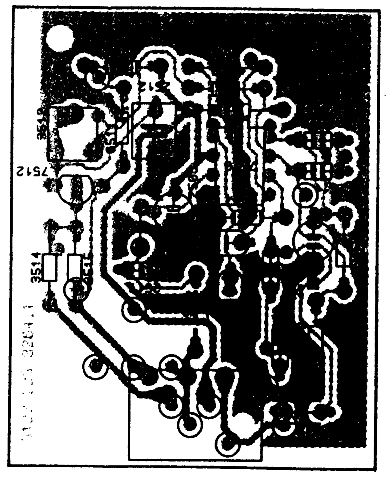
T=50us
Δv=5v

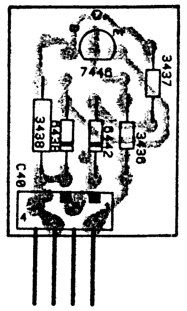
TP28



T=5ms
Δv=10v

Power supply control panel 21"

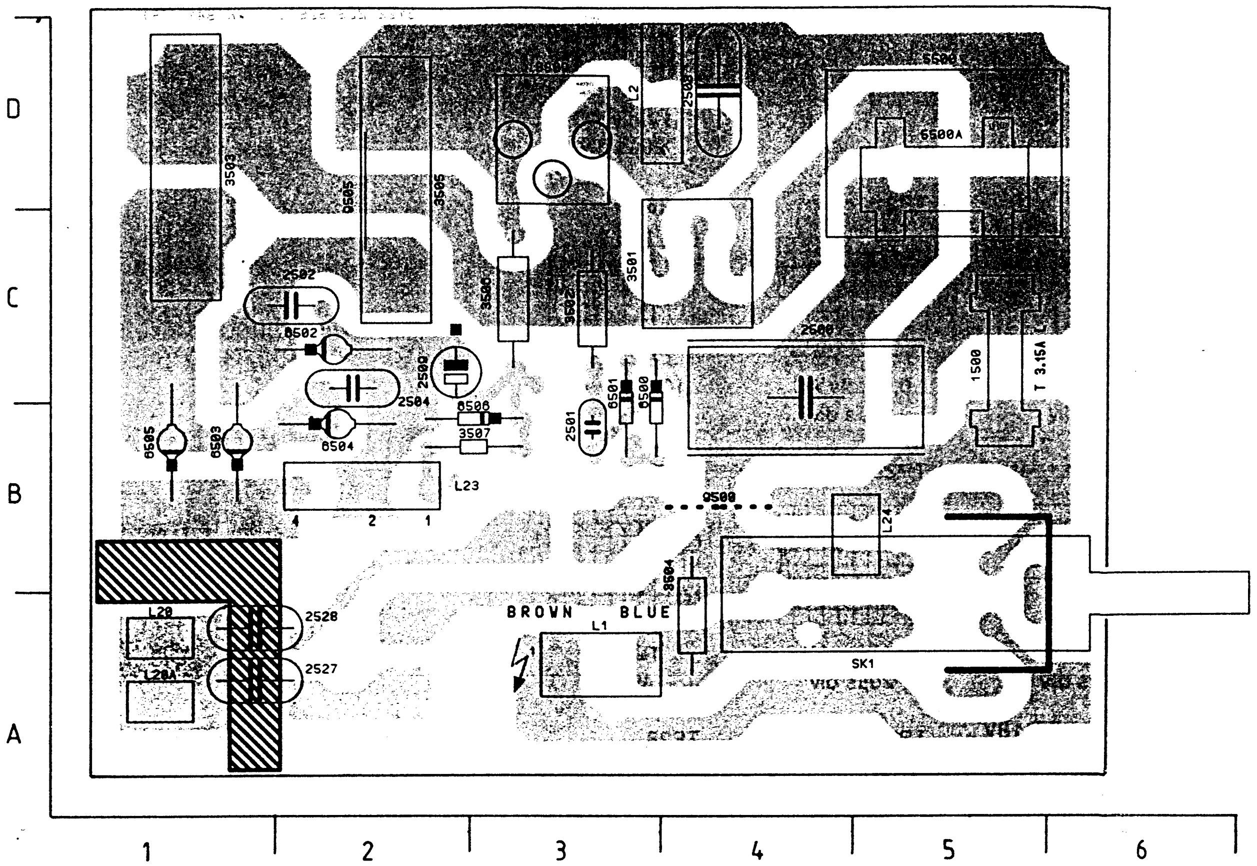

3510
7512
3514


7440
3437
3438
3442
3436
C40

P11		M11
1	—— GND - HOT	1
2	◄— START - UP	2
3	←— FEEDBACK	3
4	—→ DRIVE	4
5	←— SENSE	5
6	←— SENSE	6

CL 46532008/11B
270194

Mains input panel 25" /
Panel de entrada de 220 V AC (25")


D
C
B
A
1
2
3
4
5
6
3503
6505
3505
2503
6500A
6500
2502
6502
2509
2504
6504
3507
6506
6503
2501
6501
3501
1500
T 3.15A
L23
9500
L24
L28
L20A
2528
2527
BROWN
BLUE
L1
SK1

1500	C5	2503	D4	2528	A1	3504	A4	3509	D3	6501	B3	6505	B1	L1	A3	L23	B2
2500	C4	2504	B2	3501	C4	3505	C2	5500	D5	6502	C2	6506	B2	L2	D4	L24	B5
2501	B3	2509	C2	3502	C3	3506	C3	5500	D5	6503	B1	9500	B4	L20	A1	SK1	A5
2502	C2	2527	A1	3503	D1	3507	B3	6500	B3	6504	B2	9505	D2	L20A	A1		

L23		M23	L24		
1	—— START - UP	4	1	—— DEGAUSSING	
2	—— GND	2	2	—— DEGAUSSING	
3	—— NC	3			
4	—►— U RECT	1			

CL 46532008/11A
270194

Carrier panel 25" / Panel principal 25"

1000	F3
1015	D4
1105	C5
1106	C5
1204	C5
1206	C5
1207	C5
1208	C5
1275	E4
1277	E4
1278	E4
1279	E4
1449	F2
1540	B3
1602	A5
1630	A4
2001	D3
2002	F4
2007	E3
2008	F4
2009	F4
2010	F4
2016	D3
2017	D3
2026	D3
2027	D3
2101	D5
2102	D5
2103	D5
2104	D4
2112	D5
2119	C5
2123	D5
2138	E5
2200	C5
2208	D5
2212	E5
2213	D4
2219	D5
2220	D5
2221	D5
2222	D4
2223	C4
2224	D5
2225	D5
2228	D5
2236	F5
2243	F5
2245	F5
2246	F5
2248	E4
2249	F4
2251	E5
2253	F4
2254	F4
2256	F4
2257	F4
2260	C5
2261	D4
2262	F4
2264	C4
2265	D4
2272	E4
2273	E4
2275	E4
2277	E4
2278	E4
2279	E4
2280	E5
2281	E4
2282	D5
2283	E5
2284	E5
2285	E5
2401	F2
2402	F3
2403	F2
2404	E2
2405	E2
2414	F2
2415	F3
2416	F3
2420	E4
2421	D4
2422	D4
2423	D4
2424	D4
2425	E4
2426	D4
2427	D4
2428	F4
2430	C3
2431	C2
2432	C3
2433	C3
2439	F1
2440	F1
2441	E2
2442	F1
2443	D3
2444	F1
2445	D1
2446	D1
2447	D2
2448	D2
2449	F2
2450	C1
2451	C1
2452	D2
2453	F2
2454	D2
2455	C1
2456	F1
2457	D1
2460	F2
2470	F1
2472	F2
2480	C2
2481	C2
2482	D2
2483	D3
2484	D3
2505	A1
2513	B1
2520	C2
2521	B1
2522	C2
2523	C2
2525	A2
2526	B2
2530	C3
2531	B3
2540	B3
2541	B3
2542	B2
2561	C3
2603	A5
2604	B5
2605	B5
2606	B4
2607	B5
2608	A3
2610	A4
2615	A4
2621	B4
2624	A3
2625	B5
2626	A3
2627	A4
2628	A4
2636	A3
2638	A5
2640	A5
2648	C3
2656	C3
2682	B3
2683	A3
2685	B3
2687	B4
2688	B3
2692	B4
2695	B3
2700	B4
2703	B4
2711	B5
2714	A5
2721	B5
2722	A5
2726	A5
2727	A5
2728	A5
3000	E3
3003	E3
3004	D3
3005	D3
3010	F4
3016	D3
3017	E3
3018	E3
3019	D3
3106	D5
3113	C4
3128	C4
3130	D5
3136	D5
3137	F5
3138	E5
3139	F5
3140	F5
3141	F5
3144	F5
3200	C5
3201	C5
3202	C5
3203	C5
3204	C5
3205	C5
3206	C5
3207	E5
3208	D5
3209	D5
3210	D4
3211	C5
3212	D3
3213	D4
3214	D5
3225	C5
3236	E5
3239	C5
3240	C4
3245	E4
3250	F5
3251	E5
3252	F5
3253	F4
3254	F4
3255	E5
3256	E5
3257	E5
3259	D5
3260	D5
3261	E3
3262	E3
3263	C4
3264	C4
3265	D3
3267	B5
3268	C5
3270	C5
3271	B5
3273	E4
3275	E4
3276	E4
3277	E4
3278	E4
3279	E4
3284	E5
3285	E5
3400	F3
3401	E3
3403	F2
3404	E2
3405	F2
3406	E3
3407	E3
3408	E3
3409	F2
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3412	E2
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3414	F2
3415	F2
3416	F3
3420	D4
3421	D4
3422	D4
3423	D4
3424	D3
3425	F4
3426	F4
3427	F4
3428	F4
3429	F4
3430	C2
3431	C3
3432	C3
3433	C3
3434	C3
3435	C3
3436	C3
3437	D1
3438	D2
3439	F1
3440	F1
3441	D3
3442	F1
3443	E1
3444	C1
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3446	F1
3447	D3
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3450	D1
3451	D1
3452	E2
3453	C1
3454	C1
3456	D1
3460	F2
3470	F2
3480	C2
3481	D2
3482	D2
3483	D2
3484	D2
3485	D2
3486	D3
3487	C2
3488	D3
3489	D3
3519	B1
3520	C2
3521	A1
3522	B1
3525	B2
3526	B2
3528	B2
3529	B1
3530	B1
3542	B2
3560	C3
3561	C3
3562	C3
3563	C3
3565	C3
3598	A2
3599	A2
3600	A4
3601	B4
3602	B4
3603	A5
3604	A5
3605	A4
3606	C4
3607	B5
3608	A3
3609	A3
3610	A5
3611	A4
3612	C4
3617	A3
3622	A3
3625	B5
3626	A3
3627	A4
3633	A3
3634	A4
3635	A5
3636	A3
3637	A4
3638	A5
3640	A5
3641	A5
3642	A4
3643	A5
3646	B4
3647	B4
3648	C4
3649	C3
3650	C3
3652	B4
3653	B4
3654	C4
3656	C3
3661	A4
3662	A3
3670	B4
3671	B4
3685	B3
3687	B4
3688	B5
3689	B5
3690	B5
3691	B4
3692	B4
3693	B3
3694	A4
3695	B3
3696	B5
3697	A4
3698	A4
3699	B4
3700	B4
3702	B4
3703	B4
3704	B4
3705	B4
3706	B4
3707	A4
3708	B4
3709	A4
3710	A4
3713	C4
3715	A5
3717	B5
3718	B5
3719	B4
3720	C4
3721	C4
3726	A5
3727	A5
3728	A5
5002	D3
5014	D4
5020	D3
5100	D5
5112	D5
5206	C5
5209	D5
5260	D4
5286	E5
5287	E5
5288	E5
5424	E4
5440	F1
5441	F1
5443	E2
5445	E2
5449	F2
5454	C2
5480	C1
5480	C1
5481	C2
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5520	B1
5522	B1
5523	B1
5525	B2
5530	C2
5531	C2
5532	C2
5540	B2
5543	C3
5546	D1
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5621	B4
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5720	A5
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6280	E5
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6286	E5
6287	E5
6288	E5
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6415	F3
6416	F2
6417	F2
6420	E4
6423	D4
6425	D4
6426	D4
6427	D4
6428	C4
6438	D2
6439	E1
6440	F1
6441	F2
6442	C1
6443	E3
6446	D1
6447	D1
6449	F2
6450	D1
6451	C1
6452	D2
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6513	B1
6519	B1
6520	C2
6524	C4
6526	B1
6530	C3
6531	C3
6540	B2
6541	B3
6543	B3
6562	C3
6565	C3
6605	A5
6606	B5
6607	B5
6618	B3
6619	A3
6632	C2
6633	C3
6648	C3
6690	B4
6715	A5
6726	A5
6727	A5
6728	A5
7000	D3
7109	D3
7212	C5
7213	C5
7214	C5
7215	C3
7216	C5
7217	C5
7218	F4
7225	D4
7240	C5
7245	F5
7255	F5
7269	C5
7270	B5
7277	E4
7278	E4
7279	E4
7400	F2
7423	A4
7430	C3
7439	F1
7440	F1
7445	D1
7446	D1
7480	D2
7481	D2
7513	B1
7563	C3
7600	B4
7634	A4
7635	A5
7636	A3
7637	C4
7638	A4
7647	B4
7710	B5
9002	D3
9004	D3
9005	D3
9015	E3
9018	E3
9019	D2
9020	F4
9024	A5
9025	E4
9027	F4
9029	F5
9030	D3
9031	D5
9032	E5
9033	D5
9034	F4
9035	E4
9036	B3
9037	C4
9038	B3
9039	C5
9040	E5
9041	D4
9042	F4
9043	E2
9050	D5
9053	C5
9054	C3
9056	E5
9057	D5
9058	C4
9059	D2
9060	D3
9061	D3
9062	A5
9064	C2
9065	B5
9066	C4
9067	C4
9068	C2
9069	B4
9070	E1
9071	B4
9072	C4
9073	C4
9077	C4
9078	B5
9080	C4
9082	C5
9088	B4
9089	C4
9090	D5
9091	B4
9093	C4
9094	C4
9095	C4
9096	B5
9097	B4
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9208	C5
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9225	C5
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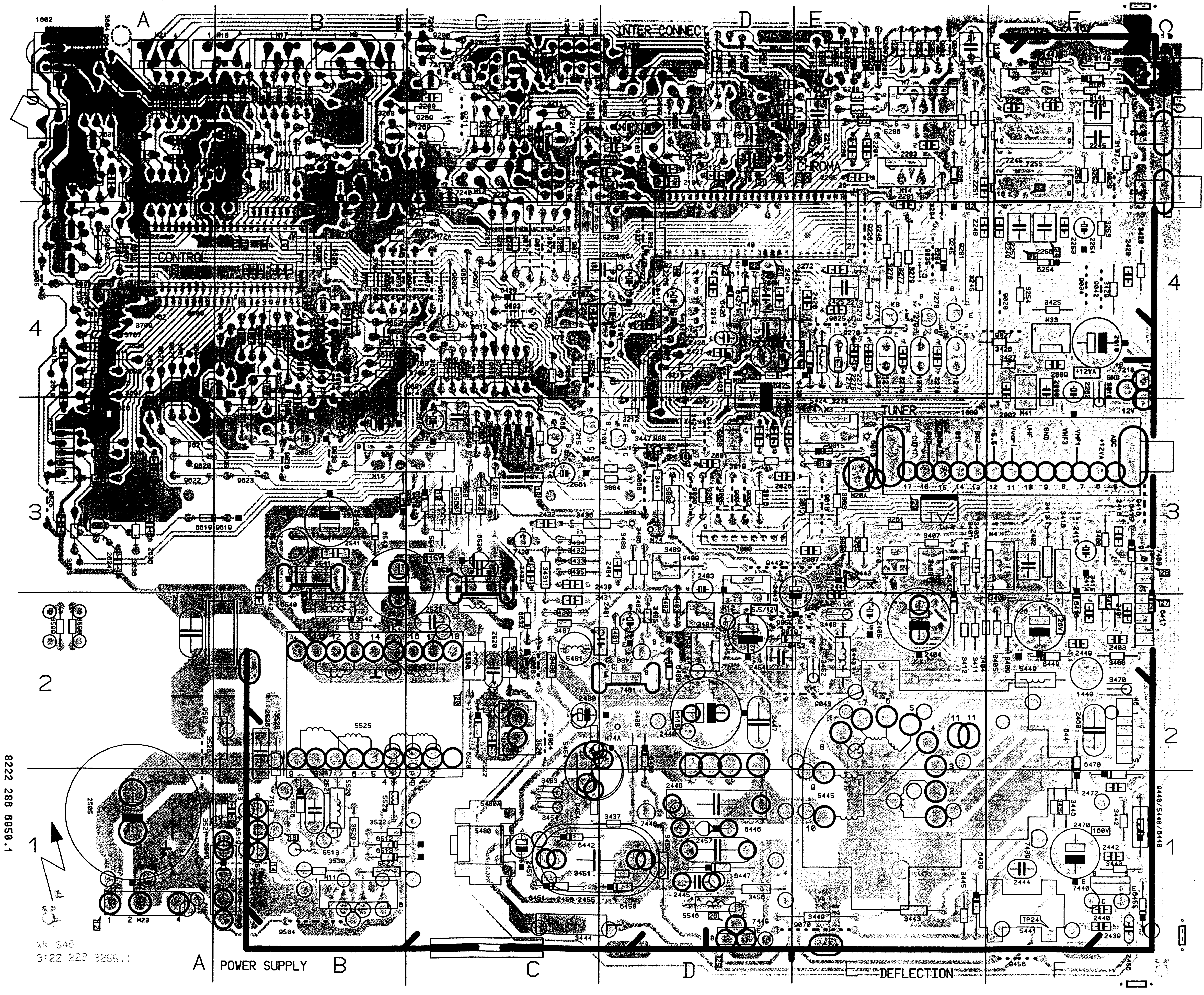
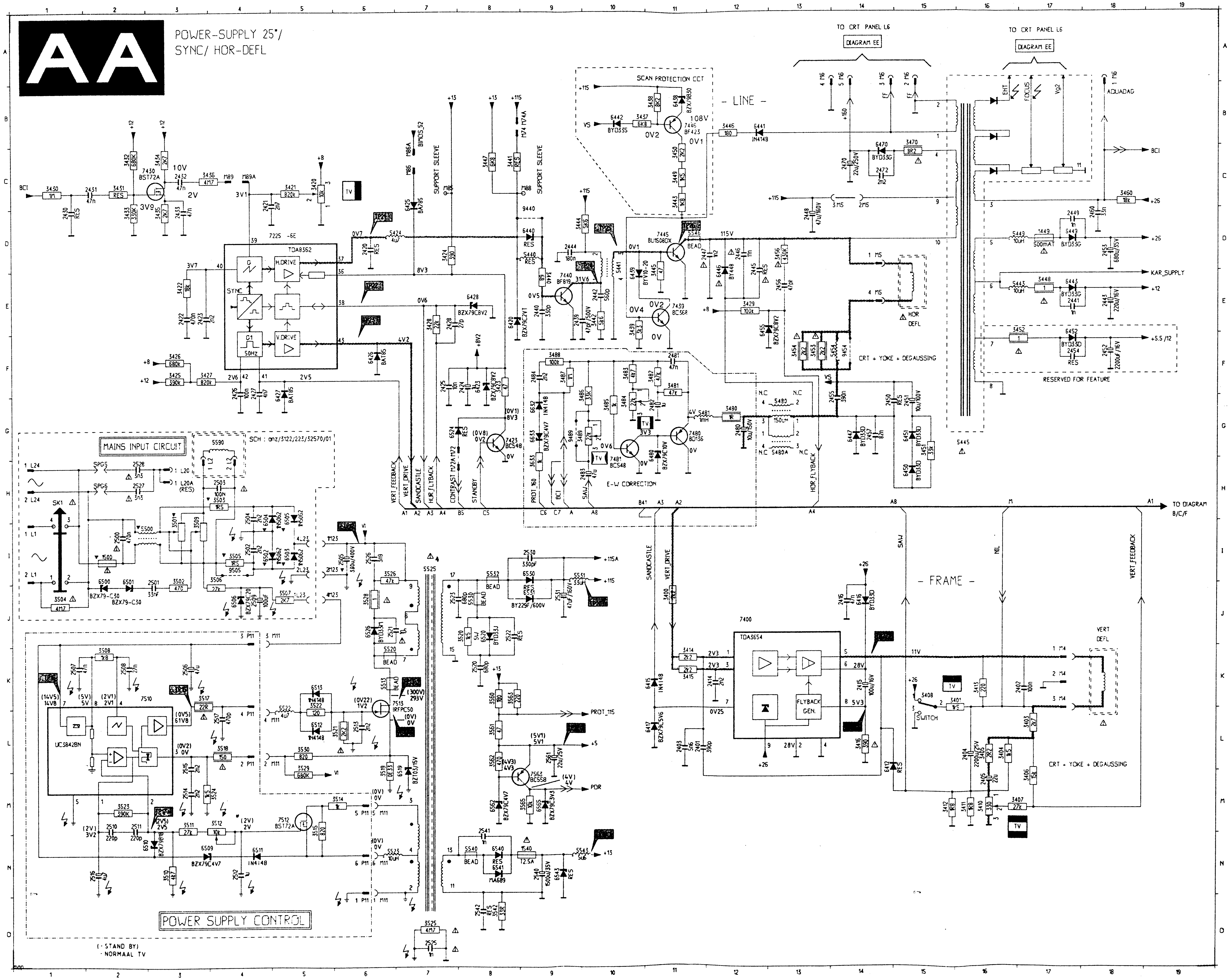
9227	D4
9245	E4
9246	E4
9269	C5
9279	E4
9281	E4
9282	C4
9283	C4
9286	E5
9287	E5
9288	E5
9298	C5
9416	F3
9440	F1
9441	D3
9443	D3
9454	C2
9456	F1
9489	D3
9503	A2
9504	B1
9600	B4
9601	A4
9604	A5
9605	A4
9607	B5
9610	A5
9612	C4
9619	A3
9620	A3
9621	A3
9622	A3
9623	B3
9625	A3
9628	B5
9638	A4
9642	A4
9643	A5
9654	C4
9656	C3
9670	B4
9671	B4
9691	B4
9694	C4
9695	C4
9696	C4
9697	C4
9704	B4
9715	A5
9719	B4
9726	A5
9727	A5
9728	A5
M3	E3
M4	F3
M5	D2
M6	F2
M7	E5
M8	B5
M9	F5
M10	C5
M11	B1
M12	D3
M13	D5
M14	E5
M15	B3
M16	F5
M17	B5
M18	B5
M20A	E3
M21	A5
M23	A1
M25	A3
M26	A5
M28	A4
M29	A4
M31	B5
M32	C5
M33	F4
M36	D2
M41	F4
M50	E3
M50A	C5
M60	B3
M62	A4
M62A	B3
M63	D5
M64	D5
M65	D5
M66	E5
M67	D5
M68	D5
M72	C4
M72A	C4
M74	D3
M74A	D2
M76	B5
M76A	E5
M85	D3
M86	D4
M86A	D4
M88	D3
M89	D3
M89A	D4
M91	D5



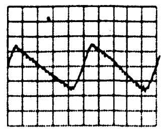
Power supply + Synchronisation + Deflection 25"

Fuente de alimentación + Sincronización + Deflexión 25"


AA
POWER-SUPPLY 25"/
SYNC/ HOR-DEFL
SCAN PROTECTION CCT
- LINE -
TO CRT PANEL L6
DIAGRAM EE
TDA8362
SYNC
H.DRIVE
V.DRIVE
50Hz
MAINS INPUT CIRCUIT
SCH : onz/3122/223/32570/01
POWER SUPPLY CONTROL
UC3842BN
(- STAND BY)
- NORMAAL TV
E-W CORRECTION
TDA3654
FLYBACK GEN.
- FRAME -
CRT + YOKE + DEGAUSSING
RESERVED FOR FEATURE
HOR DEFL
VERT DEFL
SUPPORT SLEEVE
AQUADAG
EHT
FOCUS
Vg2
KAR_SUPPLY
PROT_115
POR
TO DIAGRAM B/C/F
VERT_FEEDBACK
VERT_DRIVE
SANDCASTLE
HOR_FLYBACK
CONTRAST
STANDBY
PROT_150
HOR_FLYBACK
SAW
NIL
SWITCH
BCI
TV
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
A B C D E F G H I J K L M N O

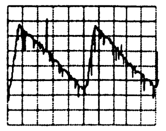
1449	D17
1500	I 2
1540	N 9
2401	L11
2402	K17
2403	L11
2404	L16
2405	M16
2414	K12
2415	K14
2416	J14
2420	D 6
2421	C 4
2422	E 3
2423	E 3
2424	F 8
2425	F 7
2426	F 4
2427	F 4
2428	E 7
2430	D 1
2431	C 2
2432	C 3
2433	D 3
2439	E 9
2440	E 9
2441	E17
2442	E10
2443	E18
2444	D 9
2445	D12
2446	D12
2447	D11
2448	D13
2449	D17
2450	G14
2451	G15
2452	F18
2453	D18
2454	F17
2455	G14
2456	E13
2457	G14
2460	D18
2470	C14
2472	C14
2480	G12
2481	F11
2482	G11
2483	H10
2484	F 9
2500	I 2
2501	I 3
2502	I 4
2503	H 4
2504	H 4
2505	I 6
2506	K 3
2507	K 1
2508	K 2
2509	J 4
2510	M 2
2511	M 2
2512	N 4
2513	L 6
2514	M 3
2515	L 3
2516	N 2
2517	L 4
2520	K 8
2521	J 6
2522	J 8
2523	J 7
2525	O 7
2526	I 6
2527	H 2
2528	H 2
2530	I 9
2531	J 9
2540	N 9
2541	M 8
2542	O 8
2561	L 9
3400	J11
3401	K16
3403	L17
3404	L16
3405	L16
3406	M17
3407	M17
3408	K15
3410	M16
3411	M16
3412	M15
3413	K16
3414	K11
3415	K11
3416	L14
3420	C 5
3421	C 5
3422	E 3
3423	F 8
3424	D 7
3425	F 3
3426	F 3
3427	F 3
3428	E 7
3429	E12
3430	C 1
3431	C 2
3432	C 2
3433	D 2
3434	C 3
3435	D 3
3436	C 4
3437	B10
3438	B11
3439	E10
3440	E 9
3441	C 8
3442	E10
3443	C11
3444	D 9
3445	D11
3446	B12
3447	C 8
3448	E17
3449	C11
3450	C11
3451	G15
3452	E17
3453	F13
3454	F13
3456	D13
3460	C18
3470	B15
3480	G12
3481	F11
3482	F11
3483	F10
3484	G10
3485	G10
3486	F10
3487	F 9
3488	F 9
3489	G 9
3501	H 3
3502	I 3
3503	H 4
3504	J 1
3505	I 4
3506	I 4
3507	J 5
3508	K 2
3509	H 3
3510	N 3
3511	M 3
3512	M 4
3514	M 6
3515	M 5
3517	K 3
3518	L 4
3519	L 6
3520	J 8
3521	L 6
3522	K 5
3523	M 2
3524	M 4
3525	O 7
3526	I 6
3528	J 6
3529	L 5
3530	L 5
3542	O 8
3560	K 8
3561	L 8
3562	L 8
3563	K 8
3565	M 9
3633	H 9
5424	D 7
5440	D 9
5441	D10
5443	E17
5445	G16
5449	D17
5454	F14
5480	G13
5480A	G13
5481	G11
5500	I 2
5513	K 6
5520	K 6
5522	L 5
5523	N 6
5525	I 7
5530	J 8
5531	I 9
5532	I 8
5540	N 8
5543	N10
5546	D11
6412	L14
6415	K11
6416	J14
6417	L11
6420	E 8
6423	F 8
6425	C 7
6426	F 6
6427	F 5
6428	E 8
6438	B11
6439	E10
6440	D 9
6441	B12
6442	B10
6443	E17
6446	E12
6447	G14
6449	D17
6450	H15
6451	G15
6452	F17
6455	E12
6470	C14
6480	G11
6500	I 2
6501	I 2
6502	I 4
6503	I 5
6504	H 4
6505	H 5
6506	J 4
6509	N 3
6510	N 2
6511	N 4
6512	L 5
6513	K 5
6519	L 6
6520	J 8
6524	G 7
6526	J 6
6530	I 9
6531	J 9
6540	N 8
6541	N 8
6543	N 9
6562	M 8
6565	M 9
6632	G 9
6633	G 9
7225	D 4
7400	J12
7423	G 8
7430	C 2
7439	E11
7440	E 9
7445	D11
7446	B11
7480	G11
7481	H10
7510	K 2
7512	M 5
7513	K 6
7563	M 9
9440	D 9
9454	F14
9489	G 9
9505	I 4
L1	I 1
L1	I 1
L2	H 4
L2	H 4
L20	H 3
L20A	H 3
L23	J 5
L23	I 5
L23	I 5
L24	H 1
L24	H 1
M11	O 6
M11	L 5
M11	J 4
M11	L 5
M11	M 6
M11	N 6
M23	I 6
M23	I 6
M23	J 6
M4	K17
M4	K17
M4	K17
M5	D14
M5	C14
M5	C14
M5	E14
M6	A18
M6	A15
M6	A14
M6	A13
M6	A14
M72	G 7
M72A	H 7
M74	B 8
M74A	B 8
M85	C 7
M86	C 7
M86A	C 7
M88	C 9
M89	C 4
M89A	C 4
P11	O 6
P11	L 4
P11	J 4
P11	L 4
P11	M 6
P11	N 6
SK1	H 1
SPG5	H 2
SPG6	H 2

TP12.25" ⏼



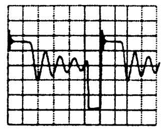
2V/div AC
2ms div

TP12.25" ⏻



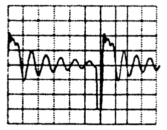
0,2V/div AC
2ms div

TP13.25" ⏼



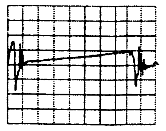
100V/div AC
5µs div

TP13.25" ⏻



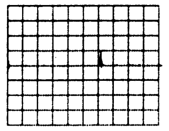
100V/div AC
5µs div

TP14.25" ⏼



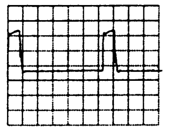
1V/div AC
0,5µs div

TP14.25" ⏻



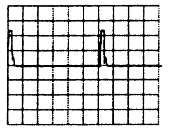
1V/div AC
0,5µs div

TP15.25" ⏼



5V/div AC
5µs div

TP15.25" ⏻



5V/div AC
5µs div

TP16.25" = DC 14V8 ⏼

TP16.25" = DC 14V5 ⏻

TP17.25" = DC 2V5 ⏼

TP17.25" = DC 2V5 ⏻

TP18.25" = DC 5V1 ⏼

TP18.25" = DC 5V1 ⏻

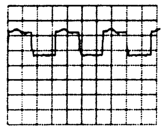
TP19.25" = DC 14V7 ⏼

TP19.25" = DC 14V5 ⏻

TP20.25" = DC 114V ⏼

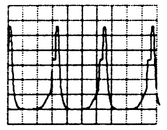
TP20.25" = DC 126V ⏻

TP21



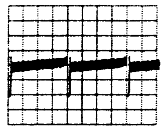
0,5V/div AC
20µs div

TP22



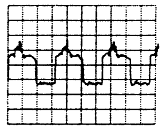
2V/div AC
20µs div

TP23



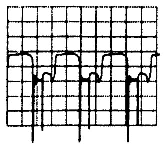
2V/div AC
5ms div

TP24



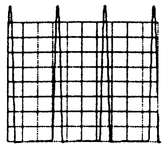
0,2V/div AC
20µs div

TP25



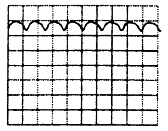
1V/div AC
20µs div

TP26



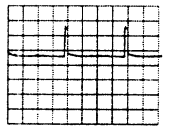
100V/div AC
20µs div

TP27



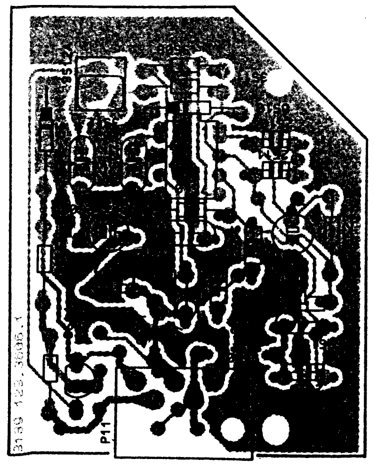
T=50us
Δv=5v

TP28



T=5ms
Δv=10v

Power supply control panel 25"

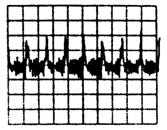


P11			M11
1	——	GND - HOT	1
2	←	FEEDBACK	2
3	◄	START - UP	3
4	→	DRIVE	4
5	←	SENSE	5
6	←	SENSE	6

CL 46532008/11E
270194

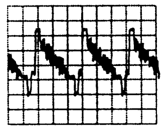
Tuner + IF + Video

TP29



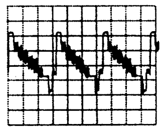
T=5ms
Δv=10v

TP30



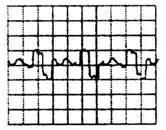
T=20us
Δv=0v5 AC

TP31



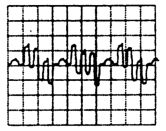
T=20us
Δv=0v5 AC

TP32



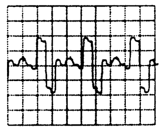
T=20us
Δv=0v2 AC

TP33



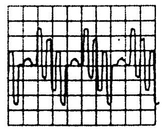
T=20us
Δv=0v2 AC

TP34



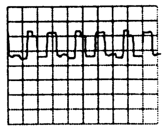
T=20us
Δv=0v2 AC

TP35



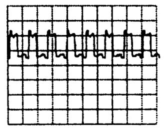
T=20us
Δv=0v2 AC

TP36



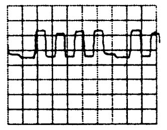
T=20us
Δv=1v

TP37

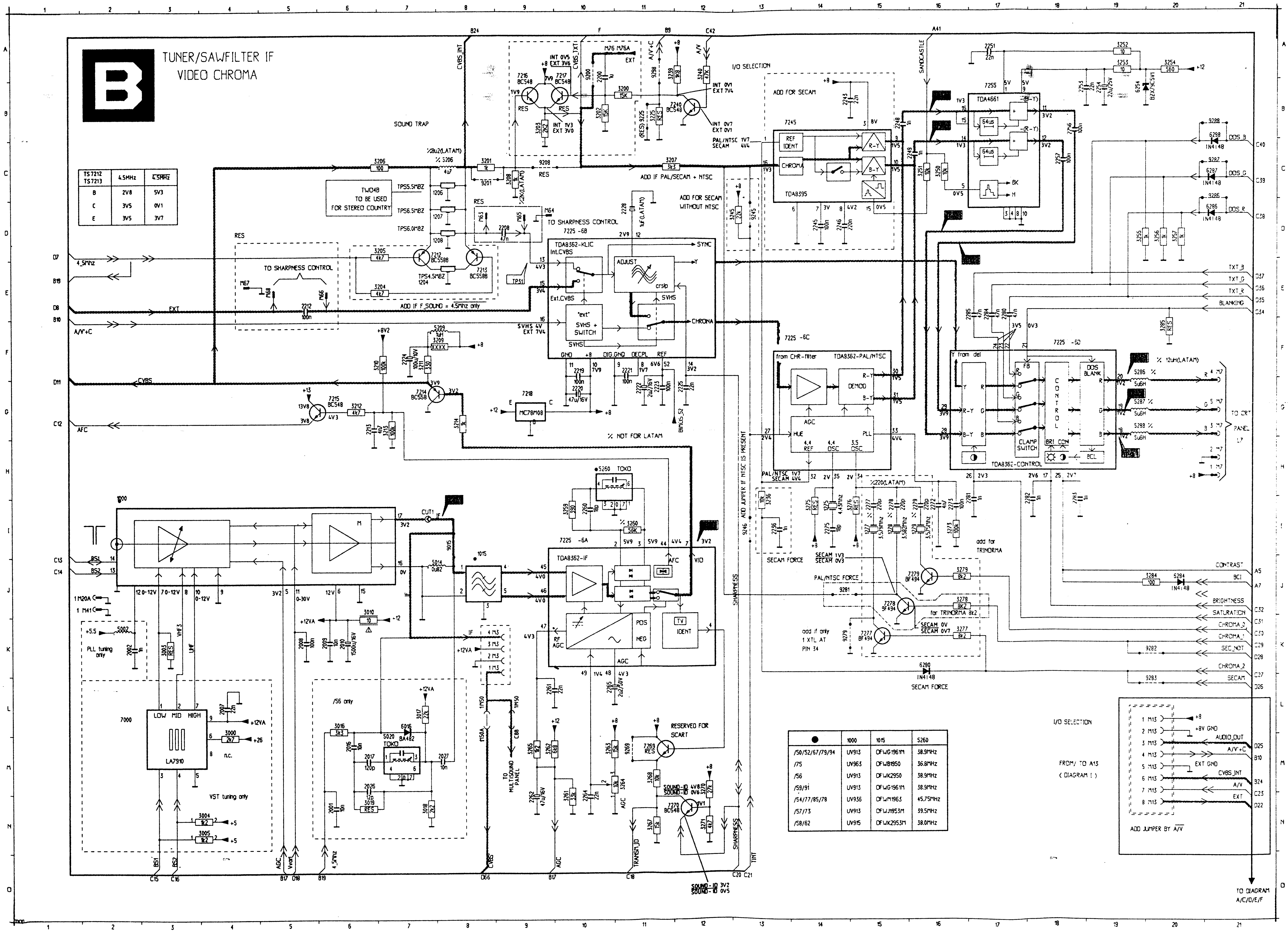


T=50us
Δv=1v

TP38



T=10us
Δv=1v

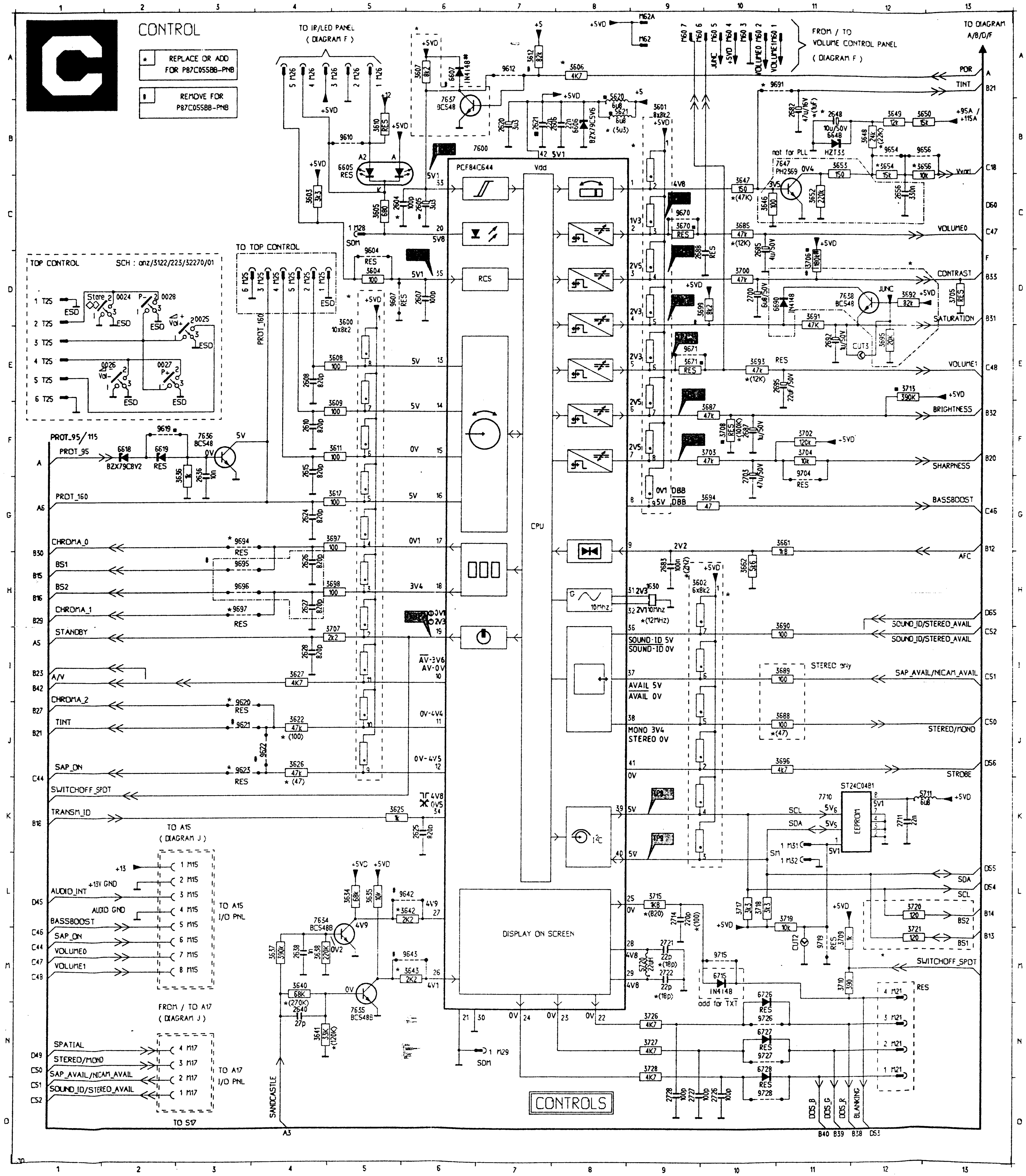

B
TUNER/SAWFILTER IF
VIDEO CHROMA
SOUND TRAP
TWD48
TO BE USED
FOR STEREO COUNTRY
TPS5.5MBZ
TPS6.5MBZ
TPS6.0MBZ
TPS4.5MBZ
TO SHARPNESS CONTROL
ADD IF F_SOUND = 4.5Mhz only
TDA8362-KLIC
Int.CVBS
Ext.CVBS
ADJUST
"ext" SVHS + SWITCH
SYNC
CHROMA
7225 -6B
7225 -6A
TDA8362-IF
AFC
VIO
TV IDENT
POS
NEG
RF AGC
AGC
MC78M08
% NOT FOR LATAM
I/O SELECTION
ADD FOR SECAM
TDA8395
REF IDENT
ADD IF PAL/SECAM + NTSC
ADD FOR SECAM WITHOUT NTSC
TDA4661
7225 -6C
from CHR-filter
TDA8362-PAL/NTSC
DEMOD
HUE
PLL
7225 -6D
TDA8362-CONTROL
CONTROL
CLAMP SWITCH
BRI CON
DOS BLANK
BCL
TO CRT PANEL
CONTRAST
BCL
BRIGHTNESS
SATURATION
CHROMA_1
CHROMA_2
SEC_NOT
SECAM
TXT_B
TXT_G
TXT_R
BLANKING
DOS_B
DOS_G
DOS_R
SECAM FORCE
PAL/NTSC FORCE
add if only 1 XTL AT PIN 34
add for TRINORMA
for TRINORMA 8k2
ADD JUMPER IF NTSC IS PRESENT
LA7910
LOW MID HIGH
PLL tuning only
VST tuning only
/56 only
TOKO
TO MULTISOUND PANEL
RESERVED FOR SCART
SOUND-ID 3V2
SOUND-ID 0V5
FROM/ TO A13 (DIAGRAM I)
AUDIO_OUT
A/V*C
EXT GND
CVBS_INT
A/V
EXT
ADD JUMPER BY A/V
TO DIAGRAM A/C/D/E/F
SHARPNESS
TINT
AGC
CVBS
TRANSM_ID

TS 7212 TS 7213	4.5MHz	$\overline{\text{4.5MHz}}$
B	2V8	5V3
C	3V5	0V1
E	3V5	3V7

●	1000	1015	5260
/50/52/67/79/94	UV913	OFWG1961M	38.9MHz
/75	UV963	OFWB1950	36.8MHz
/56	UV913	OFWK2950	38.9MHz
/59/91	UV913	OFWG1961M	38.9MHz
/54/77/85/78	UV936	OFWM1963	45.75MHz
/57/73	UV913	OFWJ1953M	39.5MHz
/58/62	UV915	OFWK2953M	38.0MHz

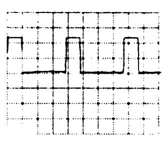
1000	I 2
1015	I 8
1204	E 7
1206	C 7
1207	D 7
1208	D 7
1275	I14
1277	I15
1278	I15
1279	I16
2001	N 6
2002	K 2
2007	L 4
2008	K 5
2009	K 6
2010	K 6
2016	M 6
2017	M 6
2026	M 6
2027	M 8
2200	A10
2208	D 9
2212	E 5
2213	G 6
2219	F10
2220	G10
2221	F11
2222	G11
2223	G11
2224	F 7
2225	G12
2228	D11
2236	I13
2243	B14
2245	D14
2246	D14
2248	B15
2249	C16
2251	A17
2253	B18
2254	B19
2256	B18
2257	C18
2260	I10
2261	L 9
2262	N 9
2264	N10
2265	L10
2272	I16
2273	I16
2275	I14
2277	I15
2278	I15
2279	I16
2280	E17
2281	I17
2282	I18
2283	I18
2284	E17
2285	E17
3000	L 4
3003	K 3
3004	N 4
3005	N 4
3010	J 5
3016	L 6
3017	L 7
3018	N 7
3019	N 5
3200	B11
3201	C 8
3202	B10
3203	B 9
3204	E 7
3205	D 7
3206	C 7
3207	C11
3208	C 9
3209	F 8
3210	F 7
3211	F 7
3212	G 6
3213	G 7
3214	G 9
3225	B11
3236	I13
3239	A11
3240	A12
3245	D13
3250	C16
3251	C16
3252	A19
3253	A19
3254	A20
3255	D19
3256	D20
3257	D20
3259	I10
3260	I11
3261	N10
3262	M 9
3263	M10
3264	M11
3265	M 9
3267	N11
3268	M11
3270	M12
3271	N12
3273	I16
3275	I14
3276	I15
3277	K16
3278	J16
3279	J16
3284	J20
3285	F20
5002	K 2
5014	J 8
5020	M 7
5206	C 8
5209	F 8
5260	H10
5286	F19
5287	G19
5288	G19
6016	L 7
6254	B19
6280	K16
6284	J20
6286	D21
6287	C21
6288	B21
7000	L 2
7212	D 7
7213	E 8
7214	G 7
7215	G 6
7216	A 9
7217	A10
7218	G 9
7225	I10
7225	F13
7225	F18
7225	D10
7240	B12
7245	B13
7255	B17
7269	M11
7270	N12
7277	K15
7278	J15
7279	J16
9015	I 8
9200	A10
9201	C 8
9208	C 9
9225	B11
9245	D13
9246	I13
9269	M11
9279	K14
9281	J14
9282	K20

9283	L20
9286	C21
9287	C21
9288	B21
9298	A11
M13	L20
M13	L20
M13	M20
M13	M20
M13	M20
M13	M20
M13	M20
M13	N20
M20A	J 2
M3	K 9
M3	K 9
M3	K 9
M3	K 9
M41	J 2
M50	L 8
M50A	L 8
M63	D 9
M64	D 9
M65	D 9
M66	E 6
M67	E 4
M68	E 5
M7	H21
M7	H21
M7	G21
M7	F21
M7	G21
M76	A10
M76A	A11


C
CONTROL
REPLACE OR ADD FOR P87C055BB-PNB
REMOVE FOR P87C055BB-PNB
TO IR/LED PANEL (DIAGRAM F)
FROM / TO VOLUME CONTROL PANEL (DIAGRAM F)
TO DIAGRAM A/B/D/F
TOP CONTROL
SCH : onz/3122/223/32270/01
TO TOP CONTROL
PCF84C644
CPU
DISPLAY ON SCREEN
CONTROLS
ST24C0481
EEPROM
POR
TINT
VOLUME0
CONTRAST
SATURATION
VOLUME1
BRIGHTNESS
SHARPNESS
BASSBOOST
AFC
SOUND_ID/STEREO_AVAIL
SAP_AVAIL/NICAM_AVAIL
STEREO/MONO
STROBE
SDA
SCL
SWITCHOFF_SPOT
PROT_95/115
PROT_160
CHROMA_0
BS1
BS2
CHROMA_1
STANDBY
A/V
CHROMA_2
SAP_ON
TRANSM_ID
AUDIO_INT
VOLUME0
VOLUME1
SPATIAL
STEREO/MONO
SAP_AVAIL/NICAM_AVAIL
SOUND_ID/STEREO_AVAIL
TO A15 (DIAGRAM J)
TO A15 I/O PNL
FROM / TO A17 (DIAGRAM J)
TO A17 I/O PNL
TO S17
SANDCASTLE
BLANKING
DDS_B
DDS_G
DDS_R
not for PLL
add for TXT
STEREO only
10MHz

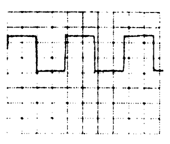
0024	D 2
0025	D 3
0026	E 1
0027	E 2
0028	D 2
1602	B 2
1630	H 9
2603	C 4
2604	C 5
2605	C 6
2606	B 8
2607	D 6
2608	E 4
2610	F 4
2615	F 4
2620	B 7
2621	B 7
2624	G 4
2625	K 6
2626	H 4
2627	H 4
2628	I 4
2636	F 3
2638	M 4
2640	N 4
2648	B11
2656	C12
2682	B11
2683	H 9
2685	C10
2687	F10
2688	D 9
2692	E11
2695	E11
2700	D10
2705	F10
2711	K12
2714	L 9
2721	M 9
2722	M 9
2726	D10
2727	D 9
2728	D 9
3600	D 5
3601	B 9
3602	H 9
3603	C 4
3604	D 5
3605	C 5
3606	A 8
3607	A 6
3608	E 5
3609	F 5
3610	B 5
3611	F 5
3612	A 7
3617	G 5
3622	J 4
3625	K 5
3626	J 4
3627	I 4
3634	L 5
3635	L 5
3636	F 3
3637	M 4
3638	M 4
3640	M 4
3641	N 4
3642	L 6
3643	M 6
3646	C10
3647	C10
3648	B12
3649	B12
3650	B12
3652	C11
3653	B11
3654	B12
3656	B12
3661	G11
3662	H10
3670	C 9
3671	E 9
3685	C10
3687	F10
3688	J11
3689	I11
3690	I11
3691	D11
3692	D12
3693	E10
3694	G10
3695	E12
3696	J11
3697	G 5
3698	H 5
3699	D 9
3700	D10
3702	F11
3703	F10
3704	F11
3705	D13
3706	D11
3707	I 5
3708	F10
3709	M11
3710	M11
3713	E12
3715	L 9
3717	L10
3718	L10
3719	L11
3720	L12
3721	M12
3726	N 9
3727	N 9
3728	N 9
5620	B 8
5621	B 6
5711	K13
5720	M 9
6605	B 5
6606	B 8
6607	A 6
6618	F 2
6619	F 2
6648	B11
6690	D11
6715	M10
6726	M10
6727	N10
6728	N10
7600	B 6
7634	L 4
7635	N 5
7636	F 3
7637	B 6
7638	D12
7647	B10
7710	K11
9604	D 5
9607	D 5
9610	B 5
9612	A 7
9619	F 2
9620	I 3
9621	J 3
9622	J 4
9623	J 3
9642	L 6
9643	M 6
9654	B12
9656	B12
9670	C 9
9671	E 9
9691	A10
9694	G 3
9695	H 3
9696	H 3
9697	H 3
9704	F11
9715	M10
9719	M11
9726	N10
9727	N10
9728	O10
M15	L 3
M15	L 3
M15	L 3
M15	L 3
M15	L 3
M15	M 3
M15	M 3
M15	M 3
M17	O 3
M17	O 3
M17	N 3
M17	N 3
M21	N12
M21	N12
M21	N12
M21	M12
M25	D 4
M25	D 4
M25	D 4
M25	D 4
M25	D 4
M25	D 3
M26	A 5
M26	A 5
M26	A 4
M26	A 4
M26	A 4
M28	C 5
M29	N 7
M31	K11
M32	L11
M60	A10
M60	A10
M60	A10
M60	A10
M60	A10
M60	A 9
M60	A 9
M62	A 9
M62A	A 9
T25	D 1
T25	D 1
T25	E 1
T25	E 1
T25	E 1
T25	E 1

TP1



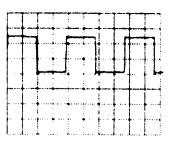
T=5us
Δv=2V

TP3



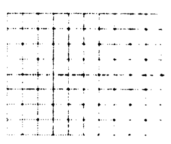
T=5us
Δv=2V

TP5



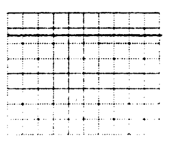
T=5us
Δv=2V

TP7



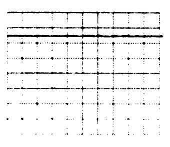
T=20ms
Δv=2V

TP9



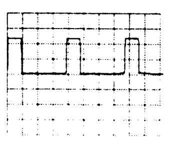
T=20ms
Δv=2V

TP11



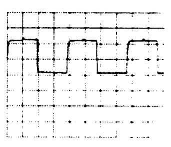
T20ms
Δv=2V

TP2



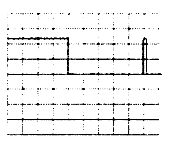
T=5us
Δv=2V

TP4



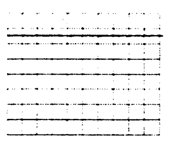
T=5us
Δv=2V

TP6



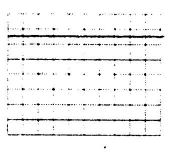
T=20ms
Δv=2V

TP8



T=20ms
Δv=2V

TP10

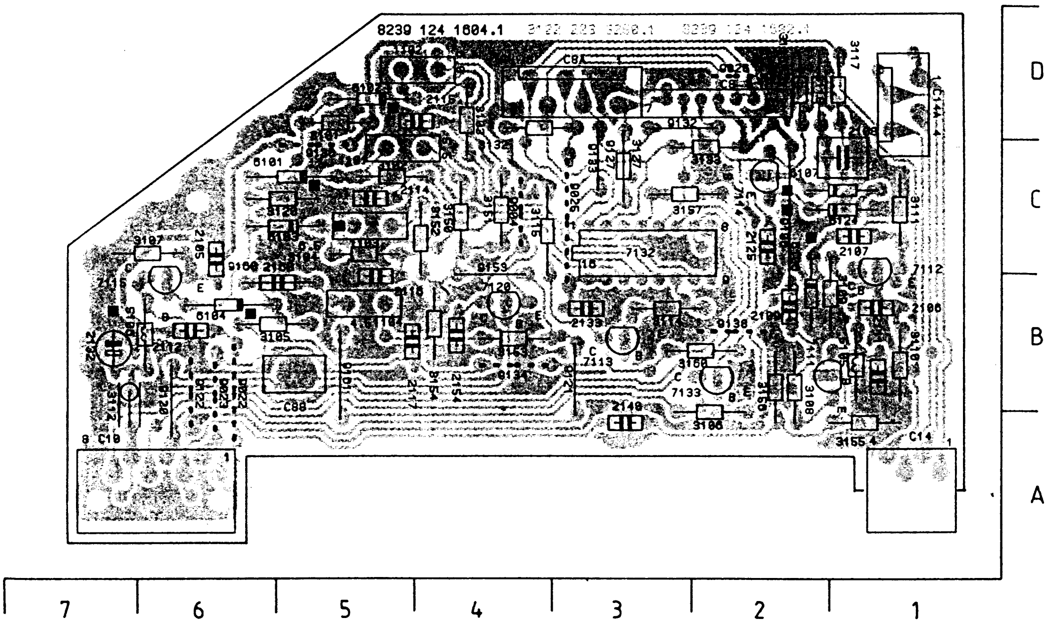


T20ms
Δv=2V

■ for PCA84C844P	21"	25"
2621	22n	--
3670	560Ω	jumper
3671	560Ω	jumper
3706	--	180k
3708	100k	--
3713	--	390k
5620	3µ3	6µ8
5621	3µ3	6µ8
9619	--	jumper

■ forP87C055BBPNB (South America)	21"	25"
2620	--	1µ
2621	22n	--
3708	100k	--
3713	--	390k
9619	--	jumper

Multisound panel / Panel multisonido



1101	C4	3117	D1	9025	C3
1102	D4	3118	D1	9026	D2
1103	C5	3120	C5	9106	C2
1104	B5	3127	C3	9120	A6
2105	B6	3132	C3	9121	A3
2106	B1	3133	C2	9122	A6
2107	C1	3150	C4	9127	C3
2108	C1	3151	C4	9132	C2
2109	B2	3152	B4	9133	C3
2111	A1	3153	B4	9134	B4
2112	B6	3154	B4	9136	C5
2114	C5	3155	A1	9138	B2
2115	C4	3156	A2	9153	B4
2116	B5	3157	C2	9160	B5
2117	B4	3160	B2	9161	B5
2125	B2	5105	B1	C8	C2
2132	B6	5106	B6	C8A	C3
2133	B3	6101	C5	C10	A6
2140	A3	6102	C5	C14	A1
2154	B4	6103	C5	C14A	D1
2160	B5	6104	B6	C88	B5
3101	C5	6106	B1		
3102	C4	6107	C1		
3103	C4	6124	C1		
3104	B5	7111	B1		
3105	B5	7112	B1		
3106	A2	7113	B3		
3107	B6	7114	C2		
3108	A2	7115	B6		
3109	B1	7120	B4		
3110	B1	7132	C3		
3111	C1	7133	A2		
3112	A6	7133	A2		
3114	B2	9004	C4		
3115	C3	9022	A6		
3116	D1	9023	A6		

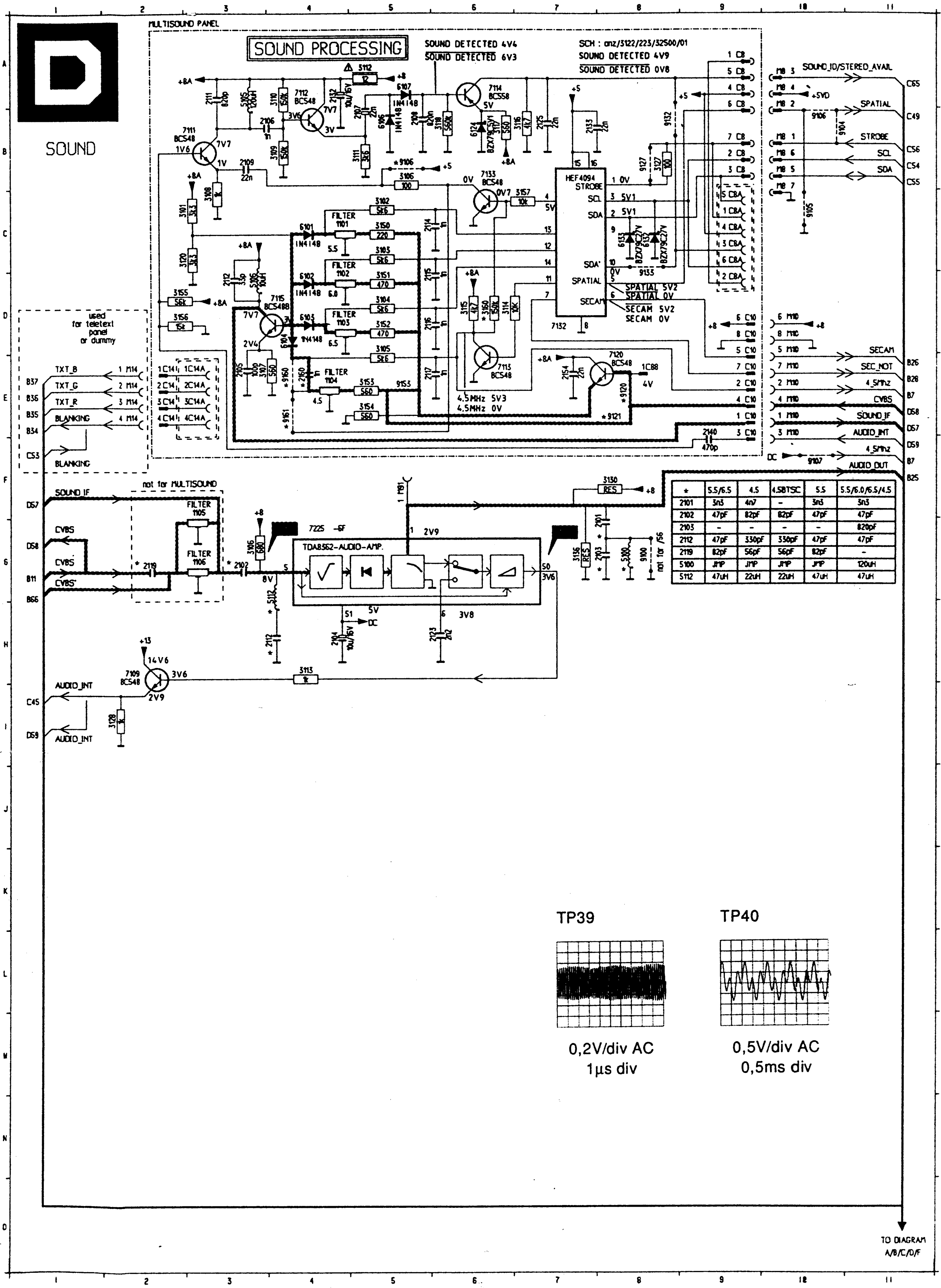
List of abbreviations / Lista de abreviatures

+95/+115	+95/+115 Supply voltage from the power supply to the line output stage
2CS	Two carrier system (stereo sound system with 2 different sound carriers for L+R and 2R sound info)
4_5 MHz	Status signal; "low" sound trap also blocks 4.5 MHz and SAW filter adjusted at 33.4 MHz (for NTSC M)
A/V'	Status signal; "high" for external CVBS, "low" for internal CVBS
A/V	Status signal; "low" for external CVBS, "high" for internal CVBS
A/V(8V)	Status signal; "low" (0V) for external CVBS, "high" (8V) for internal CVBS
A/V' + C	A/V' status signal with chrominance part of SVHS superimposed on it
AF1	Demodulated audio signal L + R (so low frequency audio signal)
AF2	Demodulated audio signal 2R (so low frequency audio signal)
AFC	Automatic Frequency Control
AGC	Automatic Gain Control
AUDIO_INT	Volume controlled LF audio signal from pin 50 IC7225-6F (mono FM sound decoder) to Multisound panel
AUDIO_OUT	Not volume controlled LF audio signal from pin 1 IC7225-6F (mono FM sound decoder) via 2CS panel to BTSC or NICAM
BASSBOOST	Status signal; "low" for bassboost "on"
BCI	Beam Current Info; If beam current increases the BCI signal decreases
BF_VOLUME	Pulse width modulated volume control signal from µP before Volume Control Panel
BIMOS_52	Signal coming from pin 52 IC7225-6B to pin 36 IC7225-6E preventing IC7225 being "hanged" at ESD flashes
BS1	For VST sets bandswitching signal, for PLL sets SDA from I²C
BS2	For VST sets bandswitching signal, for PLL sets SCL from I²C
BTSC	Broadcast Television System Committee (L-R and L+R)
C-REAR	Chrominance part from SVHS signal
CRT	Picture tube
CVBS	Colour Video Blanking Sound
CVBS'	Signal with only audio info on 5.5, 5.74, 6.5 and/or 6.74 MHz sound carrier(s) (same signal as SIF)
CVBS_INT	Off-air CVBS (from tuner) after sound trap to I/O + interface panel
EEPROM	Electrical Erasable Programmable Read Only Memory
EHT	Extra High Tension (25 kV)
EXT (Y)	CVBS from I/O + interface panel (EXT) or luminance part of SVHS (Y)
FM-MONO	Low frequency FM demodulated sound from IC7225-6F
FRONT-ID	Status signal only used if front AV IN is present; "high" if CVBS front plug is inserted so FRONT AV and "low" for REAR AV
HOR	Horizontal
HUE	Tint adjustment for NTSC system
I²C	Digital control bus of the microcomputer
IF	Intermediate Frequency
IF	IF signal from tuner to QSS panel
JUNC	Power supply voltage coming from volume control panel supplying saturation control at diagram C
KAR_SUPPLY	Supply voltage for Karaoke (optional)
L-INT	Low frequency 2CS demodulated (IC7800) sound from L-channel
MPX	Multiplexed BTSC signal
MUTE	Status signal; equal to SOUND-ID status signal from multisound muting the sound at system search
NICAM_AVAIL	Status signal; pulled "low" by NICAM panel if NICAM available
NIL	Non Interlace
NOT-SVHS	Status signal; "open" if SVHS connector inserted and "high" if SVHS connector not inserted
NTSC	National Television System Committee
OSD (DOS)	On Screen Display (in diagrams Display On Screen)
PB	Play Back
PLL	Phase Locked Loop
POR	Power On Reset
PROT_160	Status signal; switching set in standby in case beam current is too high (so BCI too low)
PROT_95/115	Status signal; switching set in standby in case +95 exceeds 110V/+115 exceeds 130V
QSS	Quasi Split Sound; Extracts L+R and 2R LF audio output and SIF info from tuner IF
R-INT	Low frequency 2CS demodulated (IC7800) sound from R-channel
RC5	Remote Control 5 system
RGB	Red Green Blue
SAP	Second Audio Program
SAP_AVAIL	Status signal; pulled "low" by BTSC panel is SAP is available
SAP_ON	Status signal; "low" for SAP selected
SAW	Sawtooth signal coming from frame IC7400 which is inverted and integrated to an inverted parabola for E/W correction in 25"
SCL	Clock of the I²C-bus
SDA	Data of the I²C-bus
SDM	Service default mode
SEC	Status signal; "low" forces IC7225-6C to SECAM (Sequential Couleur à Memoire) chroma decoding mode
SHARPNESS CONTROL	Provision for possible future enhanced sharpness control features
SIF	Second Intermediant Frequency; Signal with only audio info on 5.5, 5.74, 6.5 and/or 6.74 MHz sound carrier(s) (same signal as CVBS')
SM	Service mode
SOUND_ID	Status signal; pulled "low" by multisound panel if current selected sound system is not correct
SOUND_IF	LF sound signal from Multisound panel to FM mono decoder IC7225-6F
SPATIAL	Status signal; "high" gives spatial mode
STATUS	Status signal; DC level at positive side C2157 "high" if headphone inserted and "open" if no headphone
STEREO/MONO	Status signal; "low" for stereo, "high" for mono
STEREO_AVAIL	Status signal; pulled "low" by BTSC decoder if stereo sound is available
STROBE	Strobe signal from microprocessor to control IC7132 at multisound panel
SWITCHOFF SPOT	Status signal equal to standby status signal directly activating blanking at switching set to standby
TINT	Pulse width modulated control signal for hue control
TRANS_ID	Status signal; "high" for hor. sync. present so video identification
V-in	The DC voltage across C2505 present at pin 11 of the primary side of the transformer
V-VARI	Tuning voltage (0-30V for VST, 30V for PLL)
VG2	Voltage on Grid 2 of the picture tube
VST	Voltage Synthesized Tuning
Y	Luminance part of the video signal
Y-REAR	Luminance part from SVHS signal

C10		M10	C8		M8	C8A		A8
1	→ SOUND IF	1	1	— GND	7	1	— NC	6
2	↠ 4.5MHz	2	2	← SCL	6	2	— GND	5
3	← AUDIO - INT	3	3	↔ SDA	5	3	↠ MUTE	4
4	← CVBS	4	4	◄ +5VD	4	4	— NC	3
5	↠ SECAM	5	5	↠ SOUND ID/	3	5	↔ SDA	2
6	◄ +8V	6		STEREO AVAIL		6	→ SCL	1
7	↠ SECAM NOT	7	6	↠ SPATIAL	2			
8	— GND	8	7	← STROBE	1			

CL 46532008/11C
270194

Multi, dual, single sound / Sonido multi, duale, single


D
SOUND
MULTISOUND PANEL
SOUND PROCESSING
SOUND DETECTED 4V4
SOUND DETECTED 6V3
SCH : anz/3122/223/32500/01
SOUND DETECTED 4V9
SOUND DETECTED 0V8
HEF4094
STROBE
SCL
SDA
SDA'
SPATIAL
SECAM
7132
SPATIAL 5V2
SPATIAL 0V
SECAM 5V2
SECAM 0V
SOUND_ID/STEREO_AVAIL
SPATIAL
STROBE
SCL
SDA
SECAM
SEC_NOT
4_5Mhz
CVBS
SOUND_IF
AUDIO_INT
AUDIO_OUT
TO DIAGRAM A/B/C/D/F
used for teletext panel or dummy
TXT_B
TXT_G
TXT_R
BLANKING
not for MULTISOUND
FILTER 1105
FILTER 1106
7225 -6F
TDA8562-AUDIO-AMP.
4.5MHz 5V3
4.5MHz 0V
not for /56
TP39
TP40

*	5.5/6.5	4.5	4.5BTSC	5.5	5.5/6.0/6.5/4.5
2101	3n3	4n7	-	3n3	3n3
2102	47pF	82pF	82pF	47pF	47pF
2103	-	-	-	-	820pF
2112	47pF	330pF	330pF	47pF	47pF
2119	82pF	56pF	56pF	82pF	-
5100	JMP	JMP	JMP	JMP	120uH
5112	47uH	22uH	22uH	47uH	47uH

TP39

0,2V/div AC
1µs div

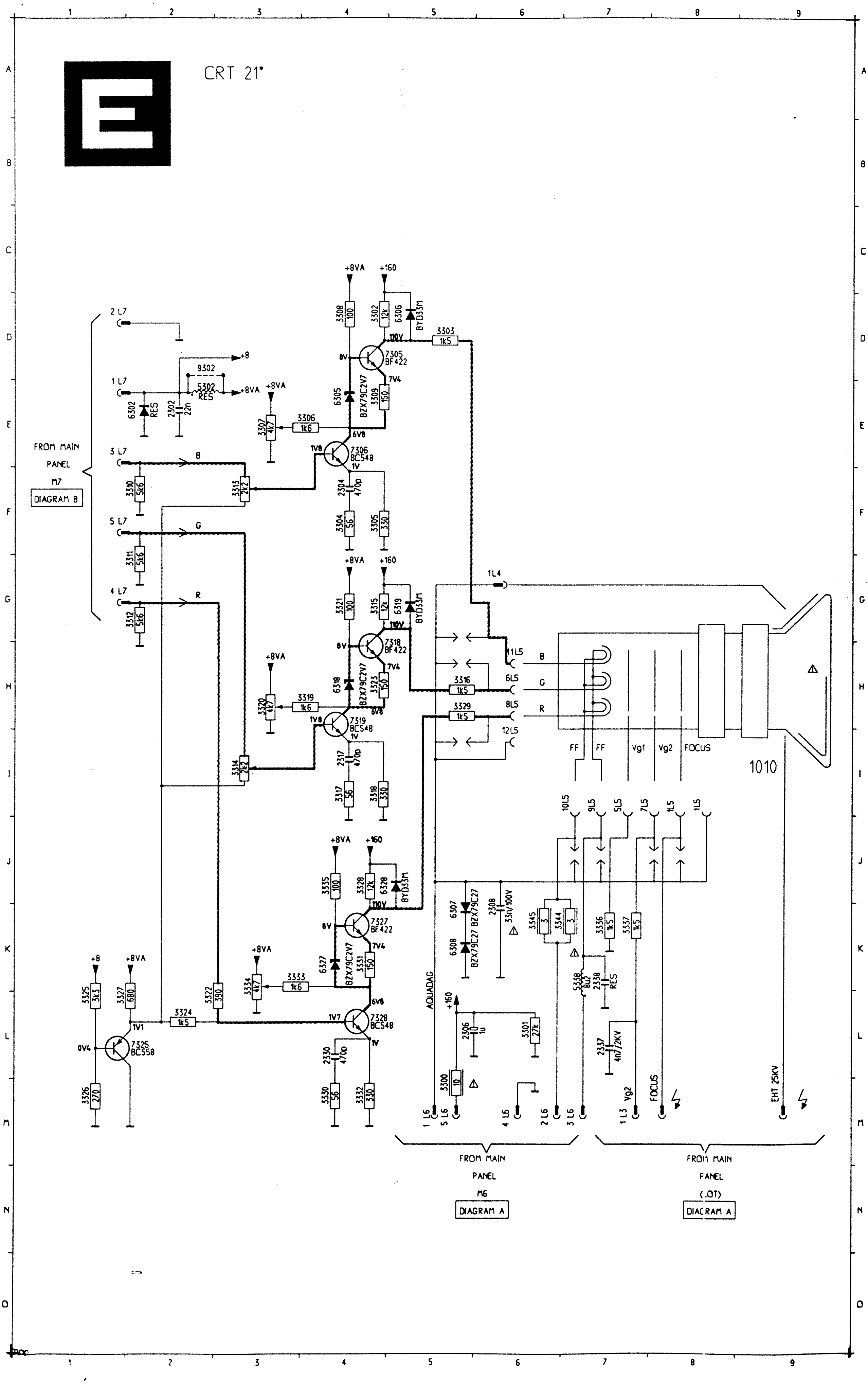
TP40

0,5V/div AC
0,5ms div

1101	C 4
1102	D 4
1103	D 4
1104	E 4
1105	F 3
1106	G 3
2101	G 8
2102	G 3
2103	G 8
2104	H 4
2105	E 3
2106	B 4
2107	B 5
2108	B 5
2109	B 3
2111	A 3
2112	D 3
2112	H 4
2114	C 5
2115	D 5
2116	D 5
2117	E 5
2119	G 2
2123	H 6
2125	B 7
2132	A 4
2133	B 7
2140	E 9
2154	E 7
2160	E 4
3101	C 3
3102	C 5
3103	C 5
3104	D 5
3105	D 5
3106	B 5
3106	G 3
3107	E 3
3108	C 3
3109	B 4
3110	A 4
3111	B 5
3112	A 5
3113	H 4
3114	D 6
3115	D 6
3116	B 7
3117	B 6
3118	B 6
3120	C 3
3127	B 8
3128	I 2
3130	F 8
3136	G 7
3150	C 5
3151	D 5
3152	D 5
3153	E 5
3154	E 5
3155	D 2
3156	D 2
3157	C 7
3160	D 6
5100	G 8
5105	A 3
5106	D 3
5112	G 4
6101	C 4
6102	D 4
6103	D 4
6104	D 4
6106	B 5
6107	A 5
6124	B 6
6132	C 8
6133	C 8
7109	H 2
7111	B 2
7112	A 4
7113	E 6
7114	A 6
7115	D 4
7120	E 8
7132	D 7
7133	B 6
7225	G 4
9100	G 8
9104	B 10
9105	C 10
9106	B 10
9106	B 5
9107	F 10
9120	E 8
9121	E 8
9127	B 8
9132	B 8
9133	D 8
9153	E 5
9160	E 4
9161	E 4
C10	E 9
C10	E 9
C10	E 9
C10	E 9
C10	D 9
C10	D 9
C10	E 9
C10	D 9
C14	E 2
C14	E 2
C14	E 2
C14	E 2
C14A	E 3
C14A	E 3
C14A	E 3
C14A	E 3
C8	A 9
C8	B 9
C8	B 9
C8	A 9
C8	A 9
C8	A 9
C8	B 9
C88	E 8
C8A	C 9
C8A	D 9
C8A	C 9
C8A	C 9
C8A	C 9
C8A	C 9
M10	E 10
M10	E 10
M10	E 10
M10	E 10
M10	D 10
M10	D 10
M10	E 10
M10	D 10
M14	E 2
M14	E 2
M14	E 2
M14	E 2
M8	B 10
M8	A 10
M8	A 10
M8	A 10
M8	B 10
M8	B 10
M8	B 10
M91	F 5

C14		M14	C14A		I21
1	→ TXT B	1	1	← TXT B	4
2	→ TXT G	2	2	← TXT G	3
3	→ TXT R	3	3	← TXT R	2
4	→ BLANKING	4	4	← BLANKING	1

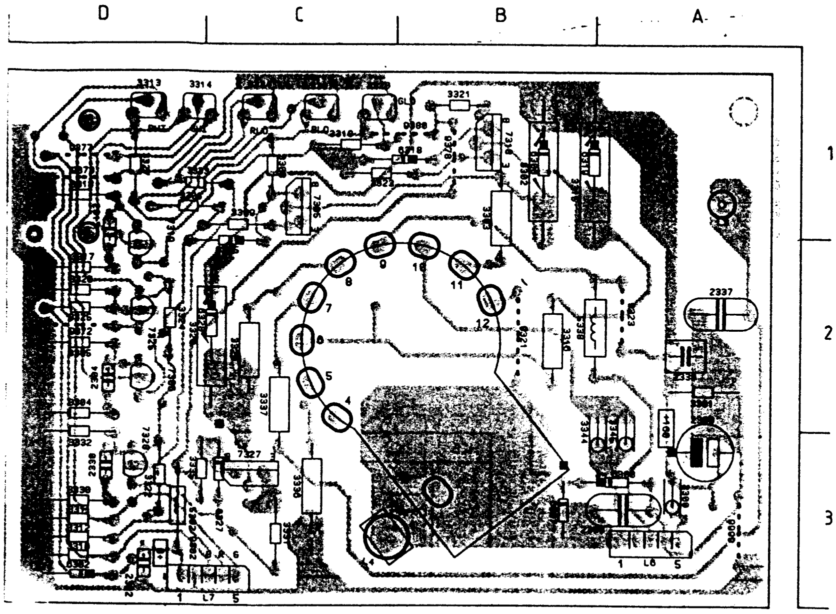
CRT panel 21" / Panel del TRC 21"


E
CRT 21"
1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
FROM MAIN
PANEL
M7
DIAGRAM B
2 L7
1 L7
3 L7
5 L7
4 L7
B
G
R
+8
+8VA
+160
9302
5302
RES
6302
RES
2302
22n
3310
5k6
3311
5k6
3312
5k6
3313
2k2
3314
2k2
3322
390
3324
1k5
3325
3k3
3326
270
3327
680
1V1
0V4
7325
BC558
3308
100
3302
12k
6306
BYD33M
3303
1k5
110V
8V
7305
BF422
7V4
6305
BZX79C2V7
3309
150
3307
4k7
3306
1k6
6V8
1V8
7306
BC548
1V
2304
470p
3304
56
3305
330
3321
100
3315
12k
6319
BYD33M
7318
BF422
6318
BZX79C2V7
3323
150
3320
4k7
3319
1k6
7319
BC548
2317
470p
3317
56
3318
330
3316
1k5
3329
1k5
3335
100
3328
12k
6328
BYD33M
7327
BF422
6327
BZX79C2V7
3331
150
3334
4k7
3333
1k6
1V7
7328
BC548
2330
470p
3330
56
3332
330
1L4
11L5
6L5
8L5
12L5
FF
FF
Vg1
Vg2
FOCUS
1010
10L5
9L5
5L5
7L5
1L5
1L5
6307
BZX79C27
6308
BZX79C27
2308
33n/100V
3345
3
3344
3
3336
1k5
3337
1k5
5338
8u2
2338
RES
2337
4n7/2KV
AQUADAG
2306
1u
3301
27k
3300
10
1 L6
5 L6
4 L6
2 L6
3 L6
1 L3
Vg2
FOCUS
EHT 25KV
FROM MAIN
PANEL
M6
DIAGRAM A
FROM MAIN
FANEL
(.OT)
DIACRAM A

2302	E 2
2304	F 4
2306	L 5
2308	K 6
2317	I 4
2330	L 4
2337	L 7
2338	K 7
3300	M 5
3301	L 6
3302	D 4
3303	D 5
3304	F 4
3305	F 4
3306	E 4
3307	E 3
3308	D 4
3309	E 4
3310	F 2
3311	G 2
3312	G 2
3313	F 3
3314	I 3
3315	G 4
3316	H 5
3317	I 4
3318	I 4
3319	H 4
3320	H 3
3321	G 4
3322	L 2
3323	H 4
3324	L 2
3325	L 1
3326	M 1
3327	L 1
3328	J 4
3329	H 5
3330	M 4
3331	K 4
3332	M 4
3333	K 3
3334	K 3
3335	J 4
3336	K 7
3337	K 7
3344	K 6
3345	K 6
5302	E 2
5338	K 7
6302	E 1
6305	E 4
6306	D 5
6307	K 5
6308	K 5
6318	H 4
6319	G 5
6327	K 4
6328	J 4
7305	D 4
7306	E 4
7318	H 4
7319	H 4
7325	L 2
7327	K 4
7328	L 4
9302	D 2
L3	M 7
L4	G 6
L5	I 8
L5	I 7
L5	H 6
L5	I 7
L5	H 6
L5	I 7
L5	I 7
L5	H 6
L5	I 6
L6	M 5
L6	M 6
L6	M 7
L6	M 6
L6	M 5
L7	E 2
L7	D 2
L7	E 2
L7	G 2
L7	F 2

CRT panels 21" & 25" / Paneles del TRC 21" & 25"

CRT panel 21"

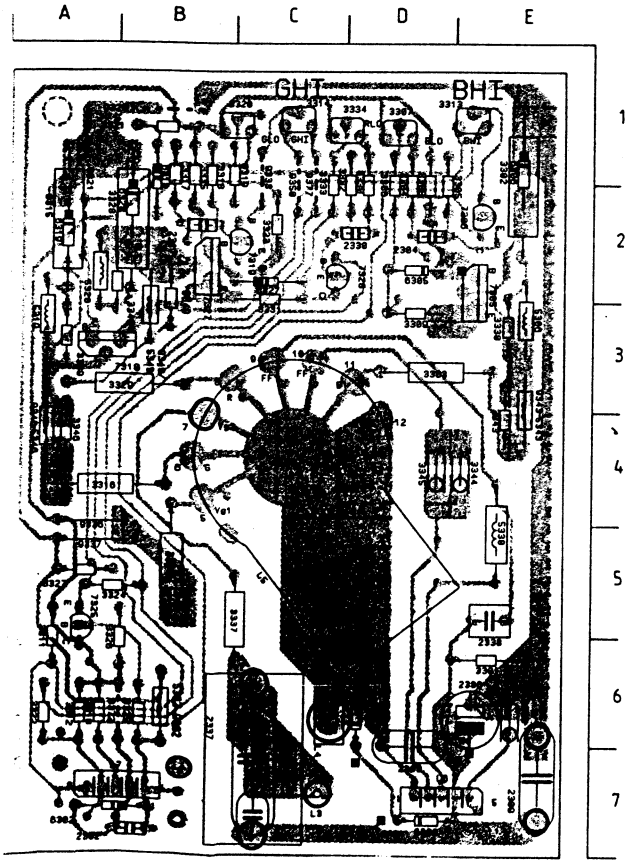


2302	D3
2304	D2
2306	A2
2308	A3
2317	D1
2330	D3
2337	A2
2338	A2
3300	A3
3301	A2
3302	B1
3303	B1
3304	D2
3305	D2
3306	D1
3307	C1
3308	C1
3309	C1
3310	D3
3311	D3
3312	D3
3313	D1
3314	D1
3315	B1
3316	B2
3317	D2
3318	D1
3319	C1
3320	C1
3321	B1
3322	D3
3323	C1
3324	D2
3325	D2
3326	D2
3327	D1
3328	D2
3329	C2
3330	D3
3331	C3
3332	D2
3333	D1
3334	C1
3335	D3
3336	C3
3337	C2
3344	B2
3345	A2
5302	D3
5338	B2
6302	D3
6305	D1
6306	B1
6307	B3
6308	A3
6318	C1
6319	B1
6327	D3
6328	D2
7305	C1
7306	D2
7318	B1
7319	D1
7325	D2
7327	C3
7328	D3
9302	D3
9321	B2
9323	A2
9372	D2
9373	D1
9377	D1
9378	B1
9380	C1
9999	A3
L3	A1
L4	C3
L5	B2
L6	A3
L7	D3

L6		M6	L7		M7	L3		MAIN
1	— AQUADAG	1	1	← +8V	1	1	← VG2	LOT
2	← HEATER (FF)	2	2	— GND	2			
3	← HEATER (FF)	3	3	← B	3			
4	— GND	4	4	← R	4			
5	← +160V	5	5	← G	5			

CL 46532008/11F
270194

CRT panel 25"



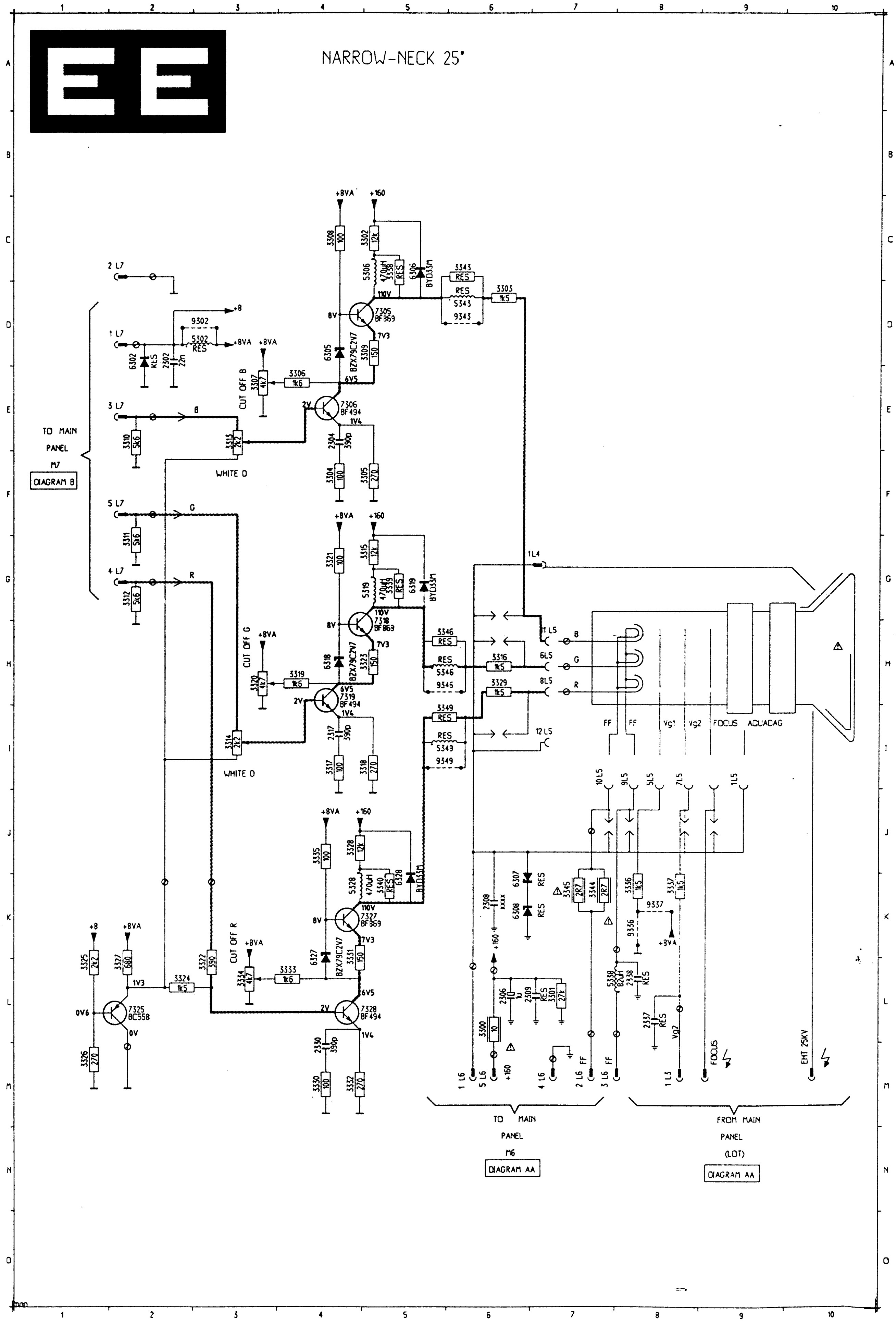
2302	B7
2304	D2
2306	E6
2308	D7
2309	E7
2317	B2
2330	D2
2337	C7
2338	E5
3300	E6
3301	E6
3302	E2
3303	D3
3304	D2
3305	D2
3306	D2
3307	D1
3308	D2
3309	D3
3310	A6
3311	A6
3312	A6
3313	E1
3314	C1
3315	A2
3316	A4
3317	B1
3318	B1
3319	B1
3320	B1
3321	B1
3322	A6
3323	C2
3324	A5
3325	B6
3326	B6
3327	A5
3328	B2
3329	B3
3330	D2
3331	C3
3332	C2
3333	C2
3334	C1
3335	B1
3336	B5
3337	B5
3338	E3
3339	A3
3340	A2
3343	E4
3344	E4
3345	D4
3346	A4
3349	B3
5302	B6
5306	E3
5319	A3
5328	A2
5338	E5
5343	E4
5346	A4
5349	B3
6302	A7
6305	D2
6306	E1
6307	D6
6308	D7
6318	B1
6319	A2
6327	C2
6328	B2
7305	E2
7306	E2
7318	A3
7319	B2
7325	A6
7327	B2
7328	C2
9302	B6
9320	B1
9321	A2
9333	C1
9336	A5
9337	A5
9343	E4
9346	A4
9349	B3
9350	C2
9372	B6
9377	C1
L3	C7
L4	C6
L5	C4
L6	D7
L7	B7

L6		M6
1	— AQUADAG	1
2	← HEATER (FF)	2
3	← HEATER (FF)	3
4	— GND	4
5	← +160V	5
L7		**M7**
1	← +8V	1
2	— GND	2
3	← B	3
4	← R	4
5	← G	5
L3		**MAIN**
1	← VG2	LOT

CL 46532008/11G
270194

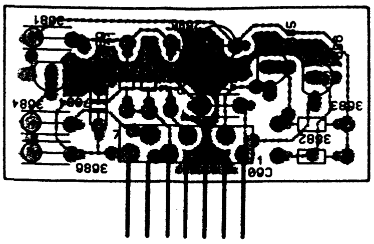
15

CRT panel 25" / Panel del TRC 25"

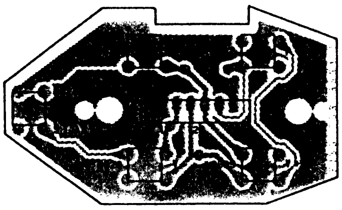

EE
NARROW-NECK 25"
TO MAIN PANEL M7
DIAGRAM B
2 L7
1 L7
3 L7
5 L7
4 L7
9302
5302 RES
+8
+8VA
+8VA
6302 RES
2302 22n
3310 5k6
3311 5k6
3312 5k6
B
G
R
3313 2k2
3314 2k2
WHITE D
CUT OFF B
CUT OFF G
CUT OFF R
3307 4k7
3320 4k7
3334 4k7
3306 1k6
3319 1k6
3333 1k6
+8VA
+160
3308 100
3302 12k
5306 470uH
3338 RES
6306 BYD33M
7305 BF869
7306 BF494
6305 BZX79C2V7
3309 150
110V
8V
7V3
6V5
2V
1V4
2304 390p
3304 100
3305 270
3343 RES
5343 RES
9343
3305 1k5
3321 100
3315 12k
5319 470uH
3339 RES
6319 BYD33M
7318 BF869
7319 BF494
6318 BZX79C2V7
3323 150
2317 390p
3317 100
3318 270
3346 RES
5346 RES
9346
3316 1k5
3349 RES
5349 RES
9349
3329 1k5
3335 100
3328 12k
5328 470uH
3340 RES
6328 BYD33M
7327 BF869
7328 BF494
6327 BZX79C2V7
3331 150
2330 390p
3330 100
3332 270
3325 2k2
3327 680
7325 BC558
3326 270
3322 390
3324 1k5
1V3
0V6
0V
1L4
1 L5
6L5
8L5
12 L5
10 L5
9L5
5L5
7L5
11L5
FF
FF
Vg1
Vg2
FOCUS
ACUADAG
2308 xxxx
6307 RES
6308 RES
3345 2R7
3344 2R7
3336 1k5
3337 1k5
9337
9336
5338 82uH
2338 RES
2306 1u
2309 RES
3301 27k
3300 10
2337 RES
+160
+8VA
1 L6
5 L6
4 L6
2 L6
3 L6
1 L3
Vg2
FOCUS
EHT 25KV
TO MAIN PANEL M6
DIAGRAM AA
FROM MAIN PANEL (LOT)
DIAGRAM AA
1 2 3 4 5 6 7 8 9 10
A B C D E F G H I J K L M N O

2302	D 2
2304	E 4
2306	L 6
2308	K 6
2309	L 7
2317	I 4
2330	M 4
2337	L 8
2338	L 8
3300	L 6
3301	L 7
3302	C 5
3303	D 6
3304	F 4
3305	F 5
3306	E 4
3307	E 3
3308	C 4
3309	D 5
3310	E 2
3311	G 2
3312	G 2
3313	E 3
3314	I 3
3315	G 5
3316	H 6
3317	I 4
3318	I 5
3319	H 4
3320	H 3
3321	G 4
3322	L 3
3323	H 5
3324	L 2
3325	L 1
3326	M 1
3327	L 2
3328	J 4
3329	H 6
3330	M 4
3331	K 4
3332	M 4
3333	L 4
3334	L 3
3335	J 4
3336	K 8
3337	K 8
3338	C 5
3339	G 5
3340	K 5
3343	C 6
3344	K 7
3345	K 7
3346	H 5
3349	I 5
5302	D 3
5306	C 5
5319	G 5
5328	K 4
5338	L 7
5343	D 6
5346	H 5
5349	I 5
6302	D 2
6305	D 4
6306	C 5
6307	K 6
6308	K 6
6318	H 4
6319	G 5
6327	K 4
6328	K 5
7305	D 5
7306	E 4
7318	H 5
7319	H 4
7325	L 2
7327	K 4
7328	L 4
9302	D 3
9336	K 8
9337	K 8
9343	D 5
9346	H 5
9349	I 5
L3	M 8
L4	G 7
L5	I 9
L5	I 8
L5	H 7
L5	I 8
L5	H 7
L5	I 8
L5	I 7
L5	H 7
L5	I 7
L6	M 6
L6	M 7
L6	M 7
L6	M 7
L6	M 6
L7	D 2
L7	C 2
L7	E 2
L7	G 2
L7	F 2

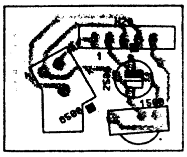
Volume control panel



Top control panel



LED + IR panel



C60			M60
1	↠	VOLUME 1	7
2	↠	VOLUME 0	6
3	—	GND	5
4	◄	+5V	4
5	►	JUNC	3
6	↞	BF - VOLUME 0	2
7	↞	BF - VOLUME 1	1

CL 46532008/11H
270194

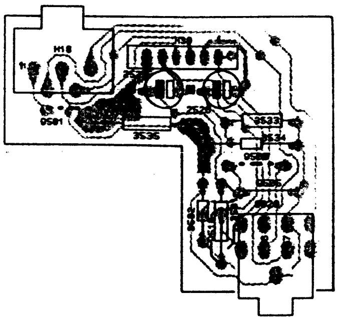
T24			M25
1	—	ESD GND	1
2	→	13UP	2
3	→	16UP	3
4	→	15UP	4
5	→	14UP	5
6	—	GND	6

CL 46532008/11K
270194

H26			M26
1	↞	A2	1
2	—	GND	2
3	◄	+5V	3
4	↠	COMMON-KATHODE	4
5	→	IR	5

CL 46532008/11L
270194

Headphone panel



H18			LS
1	→	-L	-L
2	→	+L	+L
3	—	GND	
4	→	-R	-R
5	→	+R	+R

H30			A30
1	↠	STATUS	6
2	←	+R	5
3	←	-R	4
4	—	GND	3
5	←	+L	2
6	←	-L	1

CL 46532008/11M
270194

A15			M15
1	↞	VOL 1	8
2	↞	VOL 0	7
3	↞	SAP ON	6
4	↞	BASS BOOST	5
5	—	AUDIO GND	4
6	—	NC	3
7	—	GND	2
8	◄	+13V	1

A13			M13
1	→	EXT	8
2	↞	A/V	7
3	←	CVBS INT	6
4	—	EXT GND	5
5	→	A/V + CHROMA	4
6	←	AUDIO OUT	3
7	—	GND	2
8	◄	+8V	1

A17			M17
1	↞	SPATIAL	4
2	↞	STEREO/MONO	3
3	↠	SAP AVAIL / NICAM AVAIL	2
4	↠	SOUND ID / STEREO AVAIL	1

A36			M36
1	◄	SUPPLY A	2
2	—	GND	1

A41			M41
1	—	GND	1

A8			C8A
1	←	SCL	
2	↔	SDA	
3	—	NC	
4	↞	MUTE	
5	—	GND	
6	—	NC	

A8A			M8
1	—	NC	7
2	←	SCL	6
3	↔	SDA	5
4	—	NC	4
5	←	MUTE	3
6	—	GND	2
7	—	NC	1

A40			F40
1	—	CVBS - GND	6
2	←	CVBS - FRONT	5
3	↞	FRONT - ID	4
4	←	R - FRONT	3
5	—	AUDIO - GND	2
6	←	L - FRONT	1

A30			H30
1	→	-L	6
2	→	+L	5
3	—	GND	4
4	→	-R	3
5	→	+R	2
6	↞	STATUS	1

A4			Q4
1	←	SIF	1
2	—	GND	2
3	←	AF2	3
4	—	GND	4
5	←	AF2	5

A2		(NICAM)	N2
1	—	NC	8
2	—	NC	7
3	—	NC	6
4	↞	NICAM - AVAIL	5
5	↔	SDA	4
6	→	SCL	3
7	—	GND	2
8	►	+8V	1

A2		(BTSC)	B2
1	↠	STEREO/MONO	8
2	↠	SAP - ON	7
3	↞	STEREO - AVAIL	6
4	↞	SAP - AVAIL	5
5	—	NC	4
6	—	NC	3
7	—	GND	2
8	►	+8V	1

A18			LS
1	→	-R	-R
2	—	GND	
3	→	+R	+R

A1		(NICAM)	N1
1	←	NICAM / BTSC - R - OUT	7
2	—	GND	6
3	←	NICAM / BTSC - L - OUT	5
4	—	FM - GND (AGND 3)	4
5	→	FM - MONO	3
6	—	IF - GND	2
7	→	SIF	1

A1		(BTSC)	B1
1	←	NICAM / BTSC - R - OUT	7
2	—	GND	6
3	←	NICAM / BTSC - L - OUT	5
4	—	FM - GND	4
5	→	FM - MONO	3
6	—	IF - GND	2
7	—	NC	1

A19			LS
1	→	-L	-L
2	—	GND	
3	→	+L	+L

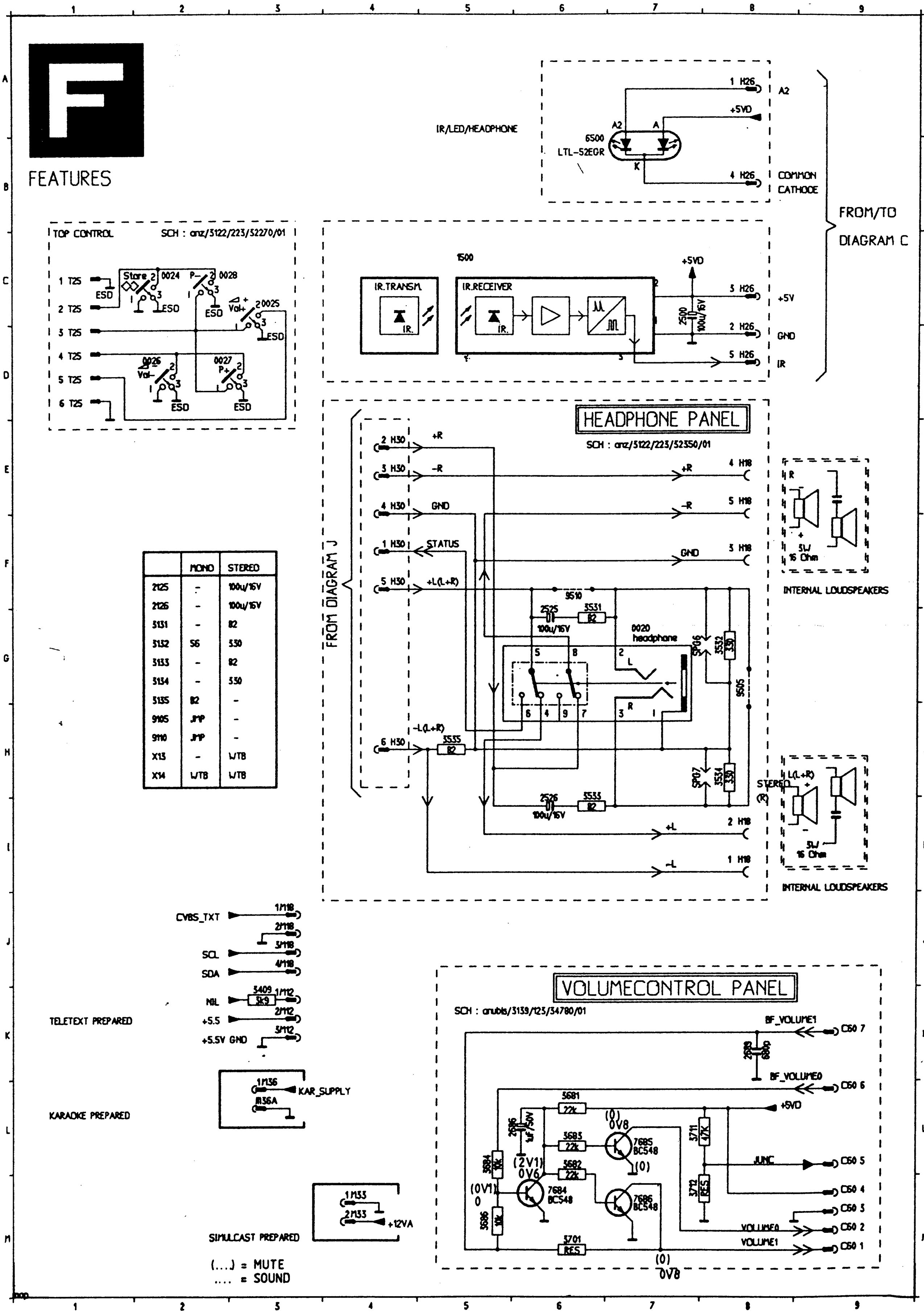
A20			LS
1	→	+SUB	+SUB
2	—	GND	
3	→	-SUB	-SUB

A22			A22A
1	→	+SUB	3
2	—	GND	2
3	→	-SUB	1

CL 46532008/11P
270194

3105	G7	3276	F5
3106	F7	3277	F5
3108	F7	3278	F5
3110	G8	3283	F7
3112	G7	3285	B7
3115	G7	3286	B7
3116	G7	3287	D6
3120	D7	3289	G6
3121	D7	3291	F4
3124	D7	3294	D7
3126	E7	3295	D7
3130	H7	3296	G7
3135	D7	3297	F7
3136	G9	3300	B8
3137	G8	3311	E4
3140	G9	3315	G2
3141	G8	3316	G2
3143	F8	3320	G2
3144	F8	3321	G3
3145	F8	3325	G3
3146	F8	3801	C1
3147	E8	3803	D1
3148	E8	3804	D1
3149	E8	3807	B1
3150	D8	3808	C3
3151	G8	3810	B1
3152	D8	3811	B1
3153	F8	3820	E2
3154	E8	3821	D1
3155	E8	3822	E1
3156	F8	3823	F2
3157	C8	3824	F1
3158	D8	3825	F2
3159	D7	3826	F2
3160	F10	3827	F2
3161	E9	3828	F1
3162	D10	3829	F1
3163	D9	3900	H9
3164	C8	3901	H9
3165	A8	5200	F3
3166	A8	5201	D6
3167	B8	5801	C2
3168	B8	6101	E7
3169	C9	6140	G8
3170	F8	6188	C10
3171	D8	6190	D8
3172	C8	6191	D8
3173	C8	6192	D9
3174	D8	6193	F8
3175	B8	6194	F9
3176	B8	6195	E8
3177	B9	6196	B8
3178	B9	6197	H5
3179	E10	6198	G6
3180	E10	6199	B10
3181	B8	6201	C5
3182	A8	6202	B5
3183	F10	6203	C5
3184	D10	6204	C5
3185	F10	6205	B7
3186	D10	6206	H5
3187	B10	6207	H5
3188	B10	6208	B7
3189	B8	6217	B4
3190	H7	6222	B7
3191	A8	6270	E4
3192	G6	6275	E7
3193	H6	6276	E7
3193	H6	6295	C8
3194	H7	6296	B9
3195	H6	6297	B4
3196	B9	6298	G3
3197	A9	6823	F2
3198	B10	6828	F2
3199	A9	7105	F7
3201	B5	7106	E6
3202	B5	7110	F7
3203	D5	7115	G7
3204	B5	7120	E6
3205	B4	7125	G7
3206	C5	7130	G7
3207	C4	7135	E7
3208	B5	7140	G8
3209	B4	7150	D8
3210	B7	7151	D7
3211	C7	7152	E8
3212	H5	7190	F9
3213	B7	7191	D9
3214	H5	7192	B9
3215	C6	7193	G6
3216	B6	7194	H6
3220	D4	7195	C8
3221	C4	7199	B10
3223	C3	7205	C5
3224	C3	7208	C4
3225	C3	7219	E4
3226	B4	7220	E3
3227	D4	7221	D4
3228	C4	7240	F3
3229	E3	7250	G3
3230	D3	7260	F6
3231	D3	7261	F7
3232	D3	7265	E6
3233	D3	7266	E7
3235	E3	7270	G5
3236	D2	7271	G5
3238	D3	7275	F5
3239	G2	7280	F5
3241	B3	7285	C7
3242	D5	7291	F4
3243	B3	7315	G3
3244	C4	7320	G3
3245	H4	7325	G4
3246	D5	7800	C2
3247	D4	7820	E2
3248	F4	7825	E2
3249	D4	7828	F1
3250	G4	7829	F1
3251	G4	9000	B8
3252	C7	9001	F9
3253	F6	9002	C9
3254	C6	9003	E8
3255	F6	9004	D9
3256	E5	9005	C9
3257	F6	9006	D8
3258	F7	9007	C8
3259	F6	9008	B5
3260	F7	9009	D7
3261	E6	9010	F7
3262	E5	9011	F8
3263	E6	9012	D6
3264	F6	9013	C4
3265	E7	9014	D4
3266	C6	9015	D4
3267	C6	9016	E2
3268	B6	9017	F2
3269	B6	9018	C3
3270	G5	9019	D6
3271	G5	9020	D4
3272	E5	9021	F2
3273	H5	9022	D3
3275	E5	9023	D6

Volume control / Top control / LED + IR / Headphone

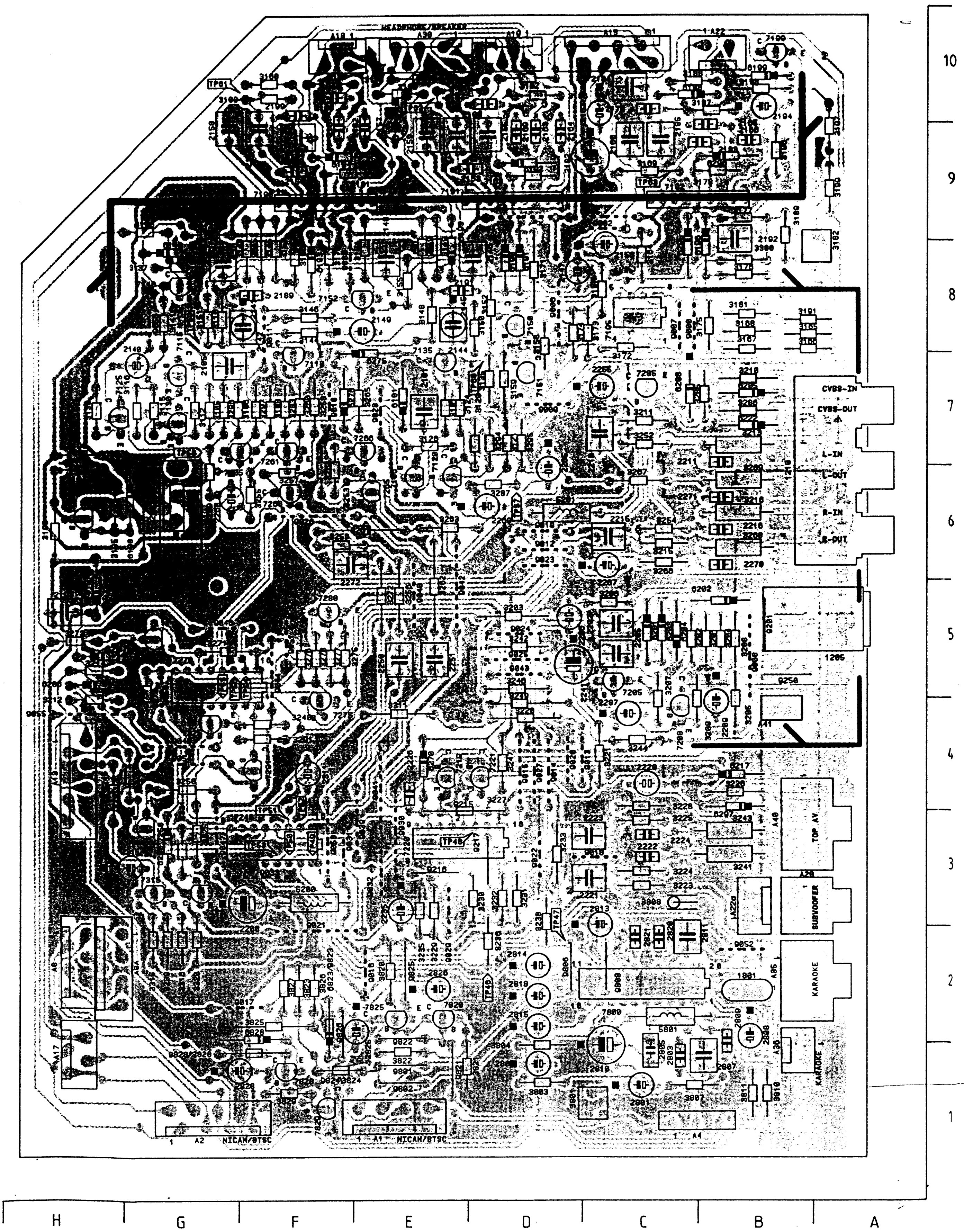

F
FEATURES
TOP CONTROL
SCH : anz/3122/223/52270/01
1 T25
2 T25
3 T25
4 T25
5 T25
6 T25
Store
0024
0028
P-
0025
Vol+
0026
Vol-
0027
P+
ESD
IR/LED/HEADPHONE
6500
LTL-52EGR
A2
A
K
1 H26
+5VD
4 H26
A2
COMMON CATHODE
FROM/TO DIAGRAM C
1500
IR.TRANSM.
IR.RECEIVER
IR.
+5VD
2500
100u/16V
3 H26
2 H26
5 H26
+5V
GND
IR
HEADPHONE PANEL
SCH : anz/3122/223/52350/01
FROM DIAGRAM J
2 H30
3 H30
4 H30
1 H30
5 H30
6 H30
+R
-R
GND
STATUS
+L(L+R)
-L(L+R)
4 H18
5 H18
3 H18
2 H18
1 H18
+R
-R
GND
+L
-L
9510
2525
100u/16V
3531
82
0020
headphone
SPG6
SPG7
3532
330
3534
330
9505
3535
82
2526
100u/16V
3533
82
STEREO
(R)
R
L
5W
16 Ohm
INTERNAL LOUDSPEAKERS
L(L+R)
CVBS_TXT
1/M18
2/M18
3/M18
4/M18
SCL
SDA
3409
3k9
1/M12
2/M12
3/M12
NBL
+5.5
+5.5V GND
TELETEXT PREPARED
1/M36
M36A
KAR_SUPPLY
KARAOKE PREPARED
1/M33
2/M33
+12VA
SIMULCAST PREPARED
(...) = MUTE
.... = SOUND
VOLUMECONTROL PANEL
SCH : anubis/3139/123/34780/01
BF_VOLUME1
BF_VOLUME0
C60 7
C60 6
2689
680p
5681
22k
+5VD
2686
1uF/50V
3683
22k
(0)
0V8
7685
BC548
3711
47K
JUNC
C60 5
3684
10k
(2V1)
0V6
3682
22k
(0)
(0V1)
0
7684
BC548
7686
BC548
3712
RES
C60 4
C60 3
3686
10k
VOLUME0
VOLUME1
C60 2
C60 1
3701
RES
(0)
0V8
1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
G
H
I
J
K
L
M

	MONO	STEREO
2125	-	100u/16V
2126	-	100u/16V
3131	-	82
3132	56	330
3133	-	82
3134	-	330
3135	82	-
9105	JMP	-
9110	JMP	-
X13	-	WTB
X14	WTB	WTB

0020	G	7
0024	C	2
0025	C	3
0026	D	2
0027	D	2
0028	C	2
1500	C	5
2500	C	7
2525	G	6
2526	I	6
2686	L	6
2689	K	8
3409	K	3
3531	G	6
3532	G	8
3533	I	6
3534	H	8
3535	H	5
3598	M	1
3599	M	1
3681	L	6
3682	L	6
3683	L	6
3684	L	5
3686	M	5
3701	M	6
3711	L	7
3712	M	7
6500	B	6
7684	M	6
7685	L	7
7686	M	7
9505	G	8
9510	F	6
C60	M	9
C60	M	9
C60	M	9
C60	M	9
C60	L	9
C60	L	9
C60	K	9
H18	I	8
H18	I	8
H18	F	8
H18	E	8
H18	E	8
H26	A	8
H26	D	8
H26	C	8
H26	B	8
H26	D	8
H30	F	4
H30	E	4
H30	E	4
H30	E	4
H30	F	4
H30	H	4
M12	K	3
M12	K	3
M12	K	3
M18	J	3
M18	J	3
M18	J	3
M18	J	3
M33	M	4
M33	M	4
M36	L	3
M36A	L	3
SPG6	G	7
SPG7	H	7
T25	C	1
T25	C	1
T25	D	1
T25	D	1
T25	D	1
T25	D	1

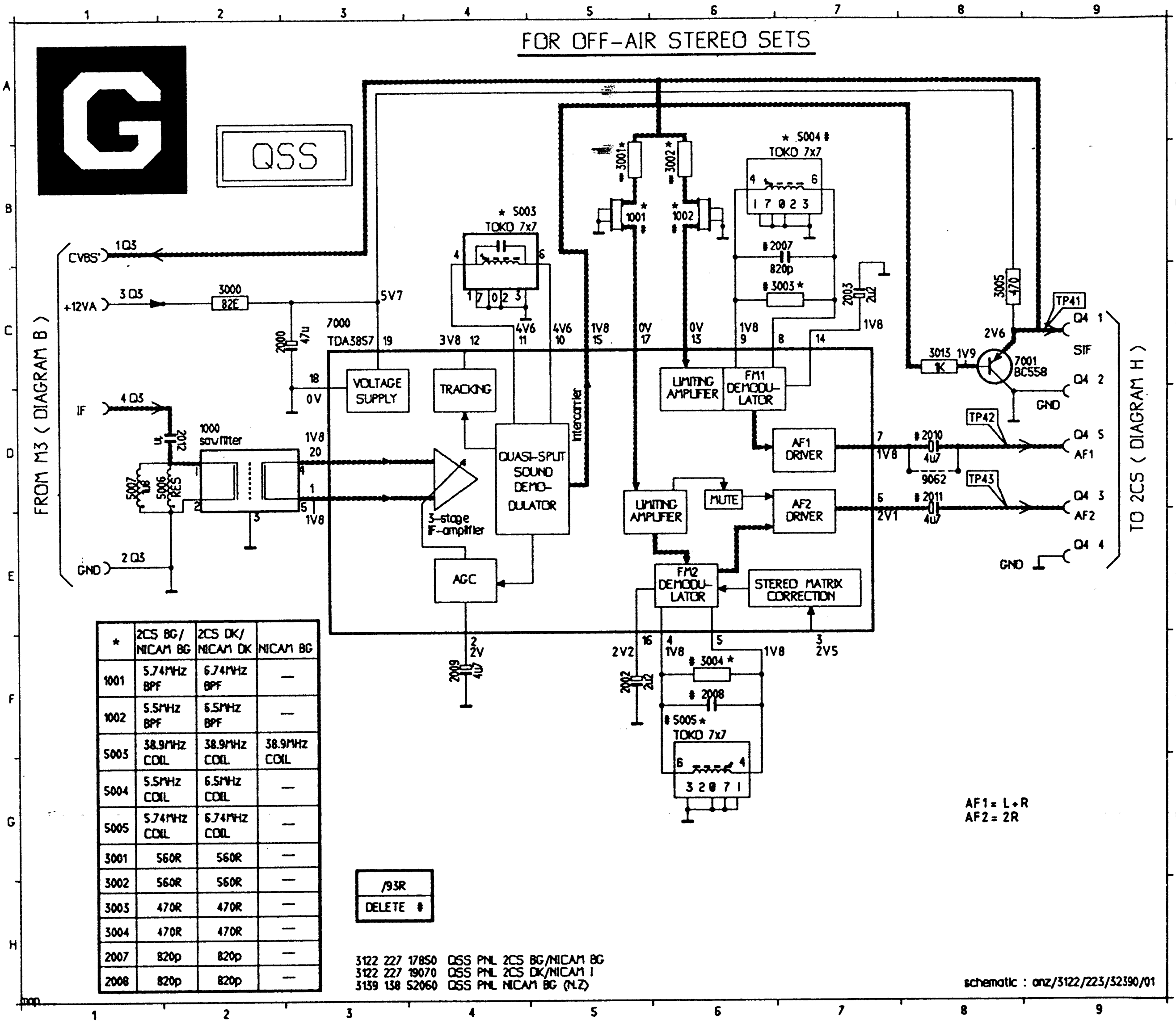
16

2CS and I/O + Interfacing


HEADPHONE/SPEAKER
A18
A30
A19
A15
A22
CVBS-IN
CVBS-OUT
L-IN
L-OUT
R-IN
R-OUT
1205
TOP AV
A20
SUBWOOFER
KARAOKE
A35
A36
A41
A40
A8
A8A
A17
A13
A2 NICAM/BTSC
A1 NICAM/BTSC
A4
TP81
TP80
TP82
TP51
TP49
TP47
TP48
1801
10
9
8
7
6
5
4
3
2
1
H
G
F
E
D
C
B
A

1205	A5
1210	A6
1801	B2
2101	E7
2105	F7
2140	G7
2141	F8
2142	F8
2143	G8
2144	E8
2145	E8
2146	D8
2147	C8
2148	E8
2149	E8
2150	F9
2151	F9
2152	E9
2153	D9
2154	F9
2155	D9
2156	C8
2157	E9
2158	F9
2159	E9
2160	C9
2161	F9
2162	E9
2163	D9
2164	D9
2165	B9
2166	B9
2167	C10
2168	F10
2169	D9
2170	C10
2182	C9
2183	B9
2184	C10
2185	C9
2189	F8
2190	D10
2191	D8
2192	B8
2193	H5
2194	B10
2199	F10
2200	F3
2202	C5
2205	C5
2206	D5
2209	B4
2210	C7
2211	B7
2215	C6
2216	B6
2220	C4
2221	C3
2222	C3
2223	C3
2224	C3
2226	E4
2235	E3
2241	D5
2250	E5
2251	E5
2255	C7
2265	D6
2267	C6
2268	F6
2269	D6
2270	B6
2271	B6
2272	E6
2287	C4
2311	F4
2315	G3
2801	C1
2802	D1
2803	C1
2805	C1
2807	B1
2808	B2
2809	B2
2810	C1
2811	C2
2813	C3
2814	D2
2815	D2
2818	D2
2820	C2
2821	C2
2825	E2
2826	E2
2828	F1
3101	E7
9024	D5
9025	D5
9026	F6
9027	D4
9028	E7
9029	E3
9030	E3
9031	F3
9032	E3
9033	F3
9039	E3
9040	E5
9041	E4
9042	E5
9043	D5
9044	F5
9045	F8
9046	G5
9047	G3
9048	G4
9049	E8
9050	G5
9051	F5
9052	B2
9053	F3
9054	G4
9055	H4
9056	G8
9201	B5
9215	D4
9216	E3
9217	D3
9250	B5
9801	E1
9802	E1
9806	D2
9808	C2
9821	E1
9822	E2
9823	F2
9824	F1
9825	E2
9826	F2
9828	F1
A1	E1
A2	G1
A4	B1
A8	H2
A8A	H2
A13	H4
A15	C10
A17	H1
A18	F10
A19	D10
A20	A3
A22	B10
A22a	B3
A30	E10
A35	A2
A36	B1
A40	B3
A41	B4

QSS panel


FOR OFF-AIR STEREO SETS
G
QSS
CVBS'
1Q3
+12VA
3Q3
3000
82E
IF
4Q3
GND
2Q3
FROM M3 (DIAGRAM B)
2000
47u
2012
1000
saw filter
5007
5006
RES
7000
TDA3857
5V7
3V8
VOLTAGE SUPPLY
TRACKING
3-stage IF-amplifier
AGC
QUASI-SPLIT SOUND DEMO-DULATOR
Intercarrier
* 5003
TOKO 7x7
4V6
1V8
0V
* 3001
* 3002
1001
1002
* 5004
TOKO 7x7
2007
820p
3003 *
2003
2V2
LIMITING AMPLIFIER
FM1 DEMODU-LATOR
MUTE
AF1 DRIVER
AF2 DRIVER
FM2 DEMODU-LATOR
STEREO MATRIX CORRECTION
2009
4u7
2002
3004 *
2008
5005 *
TOKO 7x7
2V
2V5
3005
470
3013
1K
1V9
2V6
7001
BC558
TP41
TP42
TP43
2010
4u7
2011
9062
2V1
Q4 1
SIF
Q4 2
GND
Q4 5
AF1
Q4 3
AF2
Q4 4
GND
TO 2CS (DIAGRAM H)

*	2CS BG/ NICAM BG	2CS DK/ NICAM DK	NICAM BG
1001	5.74MHz BPF	6.74MHz BPF	—
1002	5.5MHz BPF	6.5MHz BPF	—
5003	38.9MHz COIL	38.9MHz COIL	38.9MHz COIL
5004	5.5MHz COIL	6.5MHz COIL	—
5005	5.74MHz COIL	6.74MHz COIL	—
3001	560R	560R	—
3002	560R	560R	—
3003	470R	470R	—
3004	470R	470R	—
2007	820p	820p	—
2008	820p	820p	—

/93R

DELETE ⁑

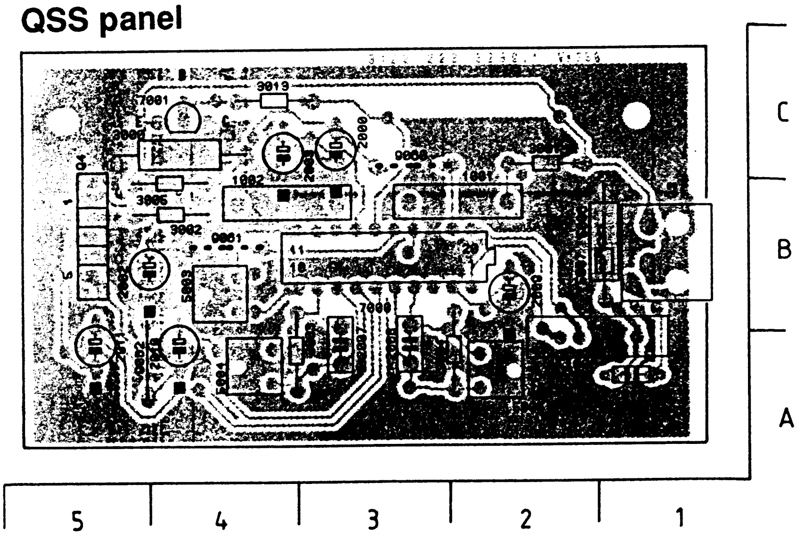
3122 227 17850 QSS PNL 2CS BG/NICAM BG
3122 227 19070 QSS PNL 2CS DK/NICAM I
3139 138 52060 QSS PNL NICAM BG (N.Z)

AF1 = L+R
AF2 = 2R

schematic : anz/3122/223/32390/01

1000	D 2
1001	B 5
1002	B 6
2000	C 2
2002	F 5
2003	C 7
2007	B 7
2008	F 6
2009	F 4
2010	D 8
2011	D 8
2012	D 2
3000	C 2
3001	B 5
3002	B 6
3003	C 7
3004	F 5
3005	C 8
3013	C 8
5003	B 5
5004	A 7
5005	F 5
5006	D 2
5007	D 1
7000	C 3
7001	C 8
9062	D 8
Q3	B 1
Q3	E 1
Q3	C 1
Q3	D 1
Q4	C 9
Q4	C 9
Q4	D 9
Q4	E 9
Q4	D 9

QSS panel


7001
3019
2000
1002
1001
3005
3002
9061
5003
7000
C
B
A
5
4
3
2
1

1000	A1
1001	B2
1002	B3
2000	C3
2002	B4
2003	C3
2007	A3
2008	A2
2009	B2
2010	A4
2011	A5
2012	A1
3000	C4
3001	C2
3002	B4
3003	A3
3004	A2
3005	B4
5003	B4
5004	A4
5005	A2
5006	B1
5007	B1
7000	A3
7001	C4
9060	C2
9061	B4
9062	A4
Q3	B1
Q4	B5

Q3		M3	Q4		A4
1	→ CVBS'	1	1	→ SIF	1
2	— GND	2	2	— GND	2
3	← +12VA	3	3	→ AF2	3
4	← IF	4	4	— GND	4
			5	→ AF1	5

CL 46532008/11R
270194

Description QSS, 2CS, I/O+interfacing and amplification

QSS (Diagram G)

- From the IF signal, coming from the tuner, the following signals are extracted on the QSS panel:
  - AF1; L+R demodulated low frequency audio signal for 2CS stereo sound dematrixing in IC7800.
  - AF2; 2R demodulated low frequency audio signal for 2CS stereo sound dematrixing in IC7800.
  - CVBS' = SIF; Audio info on sound-carrier for NICAM or BTSC sound decoding (so not demodulated yet).
    In this CVBS'/SIF the following audio signals can be present:
    4.5 MHz for M reception, 5.5 and 5.74 MHz for PAL BG 2CS stereo, 6.5 and 6.74 MHz for PAL DK 2CS stereo, 6.0 MHz for PAL I mono, 5.85 MHz for NICAM BG and 6.25 MHz NICAM I.
- For 2CS BG stereo sets filters 1002/1001 and coils 5004/5005 are tuned at resp. 5.5 and 5.74 MHz and 5003 at 38.9 MHz.
- For 2CS DK stereo sets filters 1002/1001 and coils 5004/5005 are tuned at resp. 6.5 and 6.74 MHz and 5003 at 38.9 MHz.
- For NICAM BG or NICAM I only sets, only coil 5003 is present and tuned at 38.9 MHz.
- If QSS is present CVBS from IF-detector IC7225-6A is only used for video processing and not for audio processing any more. Also if QSS is present C2119 (diagram D) is not present. The sound path is as follows (see diagram B, D and G):
  - In case the multisound panel is present CVBS from the IF-detector IC7225-6A is not used for multisound as jumpers 9120 and 9121 on multisound panel are not present. CVBS' from QSS panel is used for multisound panel via a wire from 1M50 to 1C88 from main carrier to multisound panel (jumper 9153 on multisound panel is present). After passing through the correct sound carrier on the multisound panel, the undemodulated audio signal is fed (via SOUND_IF) to IC7225-6F for FM mono sound demodulation.
  - In case the multisound panel is not present CVBS' from QSS panel is fed to IC7225-6F via a wire from 1M50 to 1M50A and filters 1105 and/or 1106 (CVBS is not used as C2119 is not present if QSS is present).

2CS (Diagram H)

- 4 main functions of IC7800 (TDA9840):
  - Dematrixing AF1 (L+R) and AF2 (2R) to L and R audio signals. R3801 is used to align the stereo separation.
  - Detect MONO, STEREO or DUAL available; send this info to µC via I^2C.
  - Source select between "internal" L & R (extracted from pin 7 and 8 IC7800) or L & R from input pins 9 & 10 IC7800. Control from µC via I^2C.
  - Source select DUAL I or DUAL II via I^2C from µC.
- If no NICAM or BTSC panel is present, then jumpers 9801 and 9802 are present passing through AUDIO_OUT from FM-mono detector IC7225-6F to pin 9 and 10 IC7800.
  If NICAM or BTSC panel is present, then L-OUT and R-OUT (low frequency audio signals from NICAM or BTSC) is fed to pin 9 and 10 IC7800.
- Jumper 9821 is present in case of BTSC reception via the QSS panel; by then AF1 signal is used for BTSC decoding and not the AUDIO_OUT signal from IC7225-6F.
- The amplitude of the AUDIO_OUT signal from IC7225-6F is adapted to the same level as L and R internally in IC7800 by TS7820 and TS7825.
- If multisound panel is present TS7828 and TS7829 is present. TS7829 will mute FM-MONO signal while multisound panel is searching for the correct sound system (while searching SOUND_ID and so MUTE is "low"; < 0.8V).

I/O + INTERFACING (Diagram I)

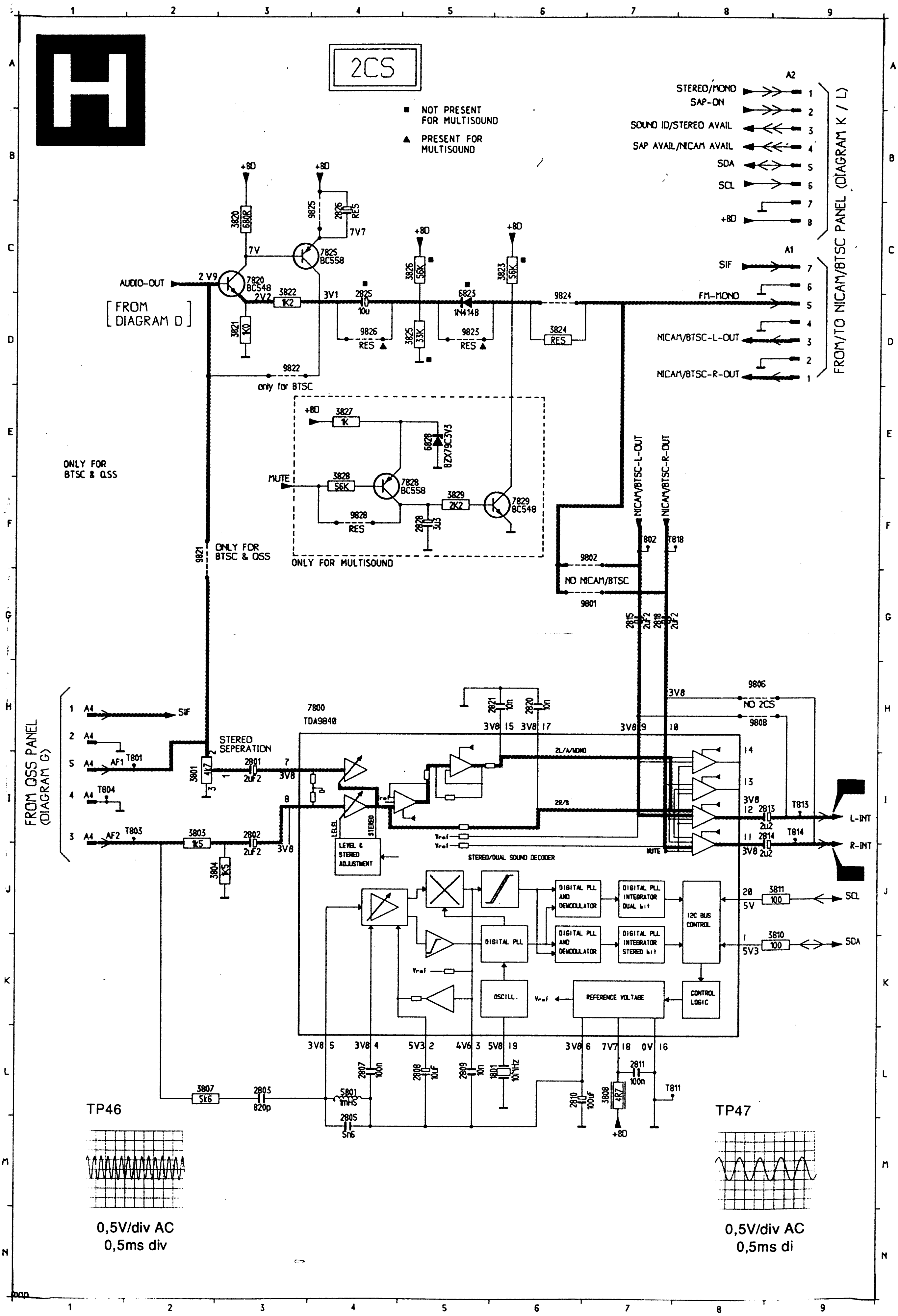
- IC7220 switches between REAR AV-IN (from SVHS or SCART) **OR** FRONT AV-IN.
  The FRONT-ID status signal switches IC7220 and is "high" in case CVBS cinch in FRONT-AV panel is inserted (mechanical switch). So Front AV has priority to Rear AV if both are present.
- IC7240 switches between AV-INT (aerial) **OR** AV-EXT (from REAR or FRONT via IC7220). The A/V status signal switches IC7240 and is "high" for INT and "low" for EXT.
- IC7270 switches between:
  - Stereo **OR** mono sound (input pin 12-13). If status signal STEREO/MONO is
    "low" for stereo and "high" for MONO (L-OUT and R-OUT are shortcircuited).
  - CVBS-INT/EXT from IC7240 **OR** CVBS from SVHS to CVBS-monitor out (input pins 12-13 IC7270).
  - A/V' **OR** A/V'+C (A/V'+C is A/V' status signal with superimposed on it the chrominance part of the SVHS) (input pins 1-2 IC7270).
- Switching for output pins 4 and 15 (resp. CVBS-monitor out and A/V' with or without C-SVHS) are driven by pin 9 and 10 IC7270 in parallel via the status signal:
  - NOT-SVHS is "open" (or high ohmic) for SVHS connector inserted and "high" for SVHS connector not inserted (mechanical switch).
  - A/V(8V) is "high" for INT and "low" for EXT (so the same polarity as the status signal A/V but then switching with 0V and 8V).
  - F-ID is "high" if CVBS front plug is inserted (so FRONT AV) and "low" if not inserted (so REAR AV). The F-ID status signal will only be used if Front AV panel is present.
- If SVHS plug is not inserted, then NOT-SVHS is "high". Both switches are in the lower position so CVBS-INT and A/V' without chroma is selected at pin 15-4 IC7270 independent of F-ID and A/V(8V).
- If SVHS plug is inserted, then NOT-SVHS is "open".
  - Only if F-ID and A/V(8V) are both "low" (so REAR AV and EXT AV selected) pin 9 and 10 IC7270 will be "low". Both switches are in the upper "SVHS-position" (CVBS-SVHS to monitor out and A/V'+C to IC7225-6B). So SVHS has priority to REAR AV in cinches if both are inserted.
  - If one or both F-ID and A/V(8V) are "high" pin 9 and 10 IC7270 will be "high".
    Both switches are in the lower position (CVBS-INT/EXT from IC7240 to CVBS monitor out and A/V'+C).

AMPLIFICATION (Diagram J)

- SPATIAL; circuitry around TS7105, 7120, 7115 and 7130 is spatial circuitry.
  Spatial feature is activated if SPATIAL status signal is "high".
- HIGH PASS FILTER; This filter passes through the mid and high frequency ranges for the squeeter-amplifiers IC7190 and IC7191. For R-channel this filter is formed by C2141 and R3143 and R3153. For L-channel this filter is formed by C2144 and R3147 and R3154. If a headphone is connected the filters are deactivated to give full frequency range to IC7190 and 7191 for headphone (see STATUS).
- The LOW PASS FILTER for the subwoofer only passes through the low tones to IC7192. Low pass filter by C2167 and R3151, R3152 (R3157 for BASSBOOST "on", so "low") and by C2184 and R3169.
- IC7195 is used to determine the highest volume control level of VOLUME-0 and VOLUME-1. This highest control level is used for controlling the subwoofer amplifier at pin 5 IC7192.
- The BIAS voltage makes a stable collector current through TS7266 and TS7261 (diagram I) and a stable supply voltage for the spatial circuitry (diagram J) independent of a ripple on +13V.
- The STATUS status signal (DC at the positive side of C2157) is "high" if headphone plug is inserted and "open" if no headphone plug is inserted.
  - If no headphone, STATUS is "open" so IC7195 can determine correct volume control level for the subwoofer amplifier.
  - If headphone is inserted, STATUS is "high" and so output of IC7195 is zero. The subwoofer is muted. Also TS7151 will not conduct any more, so C2149 will not block the low frequencies (low pass filtered by R3155 and C2148) of L+R at the basis of TS7152 any more. The L+R low frequencies will be added to the mid and high frequencies from the L & R channels and so make a full range sound to the headphone.
- If HEADPHONE is inserted the speaker sound is muted on the headphone panel.

2CS Panel

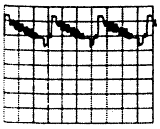
17


H
2CS
■ NOT PRESENT FOR MULTISOUND
▲ PRESENT FOR MULTISOUND
A2
STEREO/MONO 1
SAP-ON 2
SOUND ID/STEREO AVAIL 3
SAP AVAIL/NICAM AVAIL 4
SDA 5
SCL 6
7
+8D 8
FROM/TO NICAM/BTSC PANEL (DIAGRAM K / L)
A1
SIF 7
6
FM-MONO 5
4
NICAM/BTSC-L-OUT 3
2
NICAM/BTSC-R-OUT 1
+8D
3820 680R
9825
2826 RES
7V7
7V
7825 BC558
7820 BC548
AUDIO-OUT
2 V9
2V2
3822 1K2
3V1
2825 10u
3826 56K
6823 1N4148
3823 56K
9824
3824 RES
FROM DIAGRAM D
3821 1K0
9826 RES
3825 33K
9823 RES
9822
only for BTSC
3827 1K
6828 BZX79C3V3
MUTE
3828 56K
7828 BC558
3829 2K2
7829 BC548
9828 RES
2828 3u3
ONLY FOR MULTISOUND
ONLY FOR BTSC & QSS
9821
NICAM/BTSC-L-OUT
NICAM/BTSC-R-OUT
T802
T818
9802
NO NICAM/BTSC
9801
2815 2uF2
2818 2uF2
3V8
9806
NO 2CS
9808
FROM QSS PANEL (DIAGRAM G)
1 A4 SIF
2 A4
5 A4 AF1 T801
4 A4 T804
3 A4 AF2 T803
7800
TDA9840
2821 10n
2820 10n
3V8 15 3V8 17
3V8 9 18
STEREO SEPERATION
3801 4K7
2801 2uF2
7 3V8
8
3803 1K5
2802 2uF2
3V8
3804 1K5
LEVEL
STEREO
LEVEL & STEREO ADJUSTMENT
2L/A/MONO
2R/B
Vref
STEREO/DUAL SOUND DECODER
MUTE
14
13
3V8 12
2813 2u2
T813
L-INT
11
2814 2u2
T814
3V8
R-INT
20 5V
3811 100
SCL
1 5V3
3810 100
SDA
DIGITAL PLL AND DEMODULATOR
DIGITAL PLL INTEGRATOR DUAL bit
DIGITAL PLL
DIGITAL PLL AND DEMODULATOR
DIGITAL PLL INTEGRATOR STEREO bit
I2C BUS CONTROL
OSCILL.
REFERENCE VOLTAGE
CONTROL LOGIC
3V8 5
3V8 4
5V3 2
4V6 3
5V8 19
3V8 6
7V7 18
0V 16
2807 100n
2808 10uF
2809 10n
1801 10MHz
2811 100n
2810 100uF
3808 4R7
T811
+8D
3807 5K6
2803 820p
5801 1mHS
2805 5n6
TP46
0,5V/div AC
0,5ms div
TP47
0,5V/div AC
0,5ms di
1 2 3 4 5 6 7 8 9
A B C D E F G H I J K L M N

1801	L 6
2801	I 3
2802	I 3
2803	L 3
2805	M 4
2807	L 4
2808	L 5
2809	L 5
2810	L 6
2811	L 7
2813	I 8
2814	I 8
2815	G 7
2818	G 7
2820	H 6
2821	H 6
2825	D 4
2826	C 4
2828	F 5
3801	I 2
3803	I 2
3804	J 3
3807	L 2
3808	L 7
3810	K 9
3811	J 9
3820	C 3
3821	D 3
3822	D 3
3823	C 6
3824	D 6
3825	D 5
3826	C 5
3827	E 4
3828	F 4
3829	F 5
5801	L 4
6823	D 5
6828	E 5
7800	H 3
7820	C 3
7825	C 4
7828	F 5
7829	F 6
9801	G 7
9802	F 7
9806	H 8
9808	H 8
9821	F 2
9822	D 3
9823	D 5
9824	D 6
9825	C 4
9826	D 4
9828	F 4
A1	C 9
A2	A 9
A4	H 1
A4	H 1
A4	I 1
A4	I 1
A4	I 1

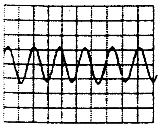
I/O +

TP48



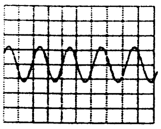
0,5V/div AC
0,5ms div

TP49



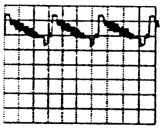
0,5V/div AC
0,5ms div

TP50



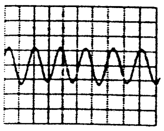
0,5V/div AC
0,5ms div

TP51



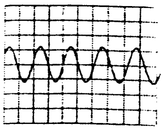
0,5V/div AC
0,5ms div

TP52



0,5V/div AC
0,2ms div

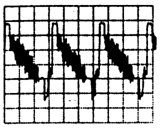
TP53



0,5V/div AC
0,5ms div

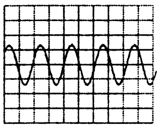
TP54 = DC 4,5V

TP55



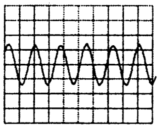
0,2V/div AC
20ms div

TP56



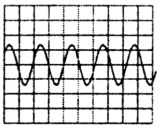
0,5V/div AC
0,5ms div

TP57



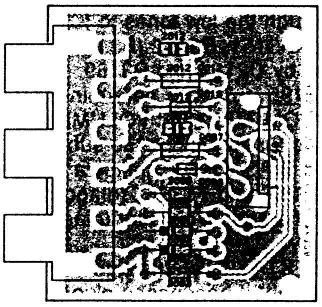
0,5V/div AC
0,2ms div

TP58



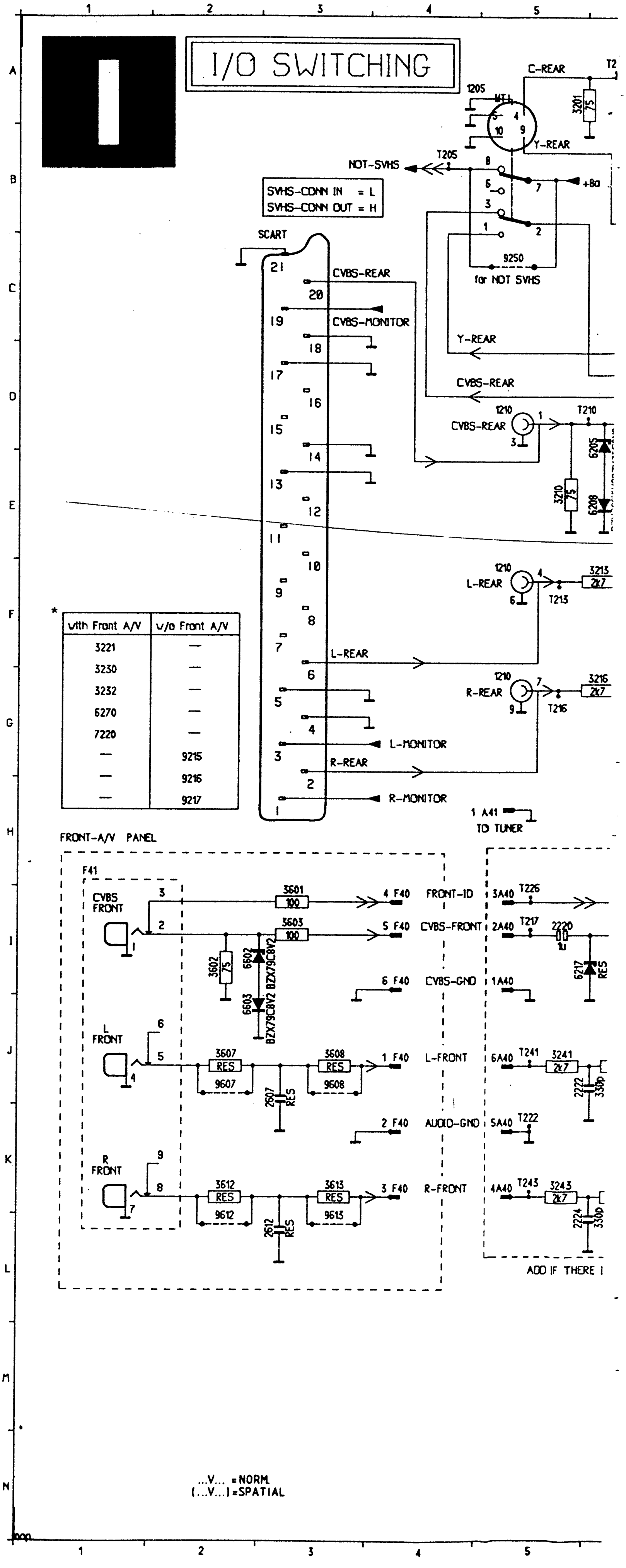
0,5V/div AC
0,5ms div

Front AV-IN panel



F40		A40
1	→ L - FRONT	6
2	— AUDIO GND	5
3	→ R - FRONT	4
4	↠ FRONT - ID	3
5	→ CVBS - FRONT	2
6	— CVBS - GND	1

CL 46532008/11N
270194

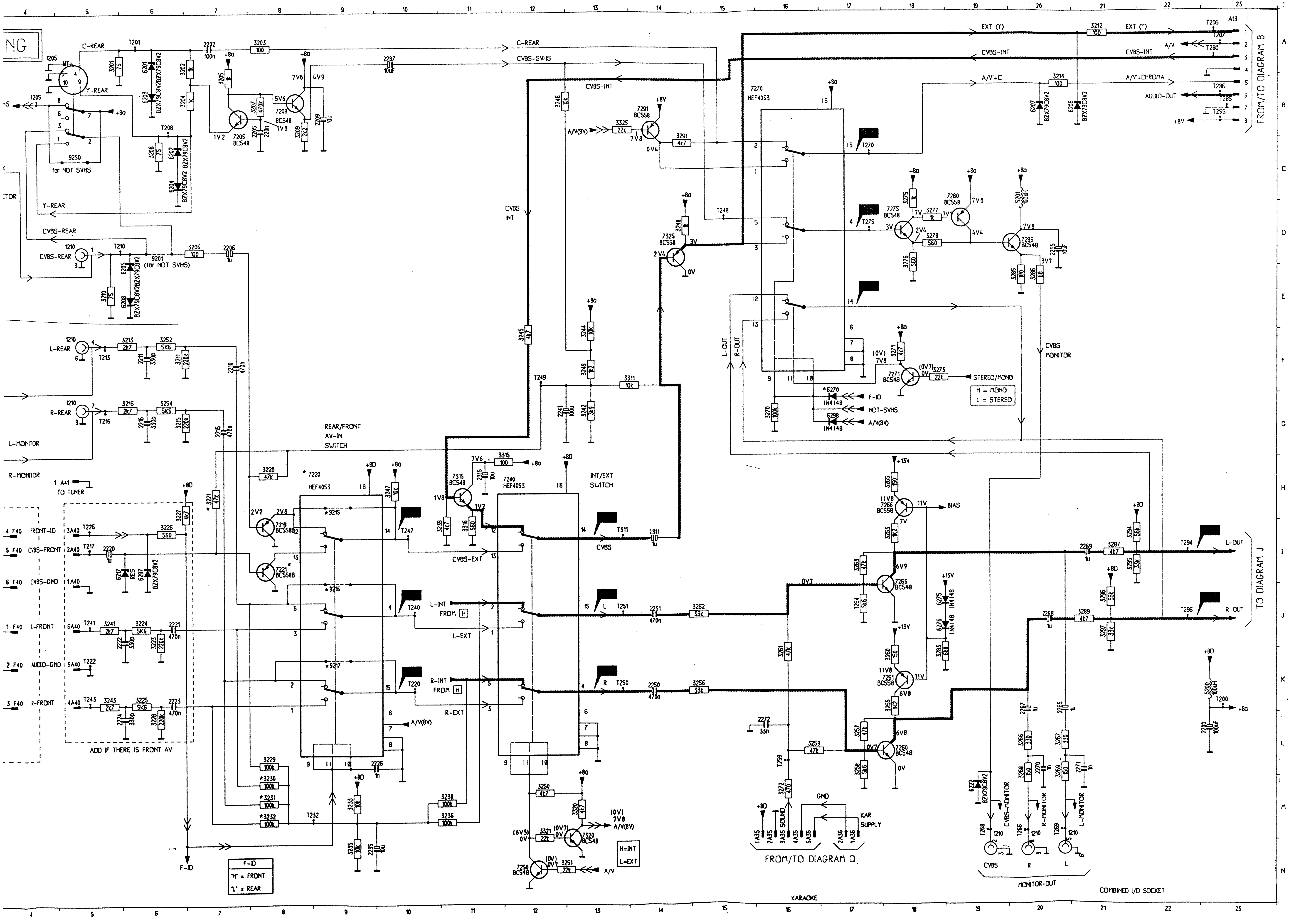

I/O SWITCHING
I
1
2
3
4
5
A
B
C
D
E
F
G
H
I
J
K
L
M
N
C-REAR
3201
75
1205
MT
Y-REAR
NOT-SVHS
T205
+8a
SVHS-CONN IN = L
SVHS-CONN OUT = H
9250
for NOT SVHS
SCART
CVBS-REAR
CVBS-MONITOR
Y-REAR
CVBS-REAR
1210
T210
3210
6205
6208
L-REAR
3215
2k7
T213
R-REAR
3216
2k7
T216
L-MONITOR
R-MONITOR
1 A41
TO TUNER
FRONT-A/V PANEL
F41
CVBS FRONT
3601
100
3603
100
3602
75
6602
6603
BZX79C8V2
4 F40
FRONT-ID
5 F40
CVBS-FRONT
6 F40
CVBS-GND
L FRONT
3607
RES
9607
2607
3608
RES
9608
1 F40
L-FRONT
2 F40
AUDIO-GND
R FRONT
3612
RES
9612
2612
3613
RES
9613
3 F40
R-FRONT
3A40
T226
2A40
T217
2220
1A40
6217
RES
6A40
T241
3241
2k7
2222
330p
5A40
T222
4A40
T243
3243
2k7
2224
330p
ADD IF THERE I
...V... = NORM.
(...V...) = SPATIAL

*

with Front A/V	w/o Front A/V
3221	—
3230	—
3232	—
6270	—
7220	—
—	9215
—	9216
—	9217

I/O + Interfacing

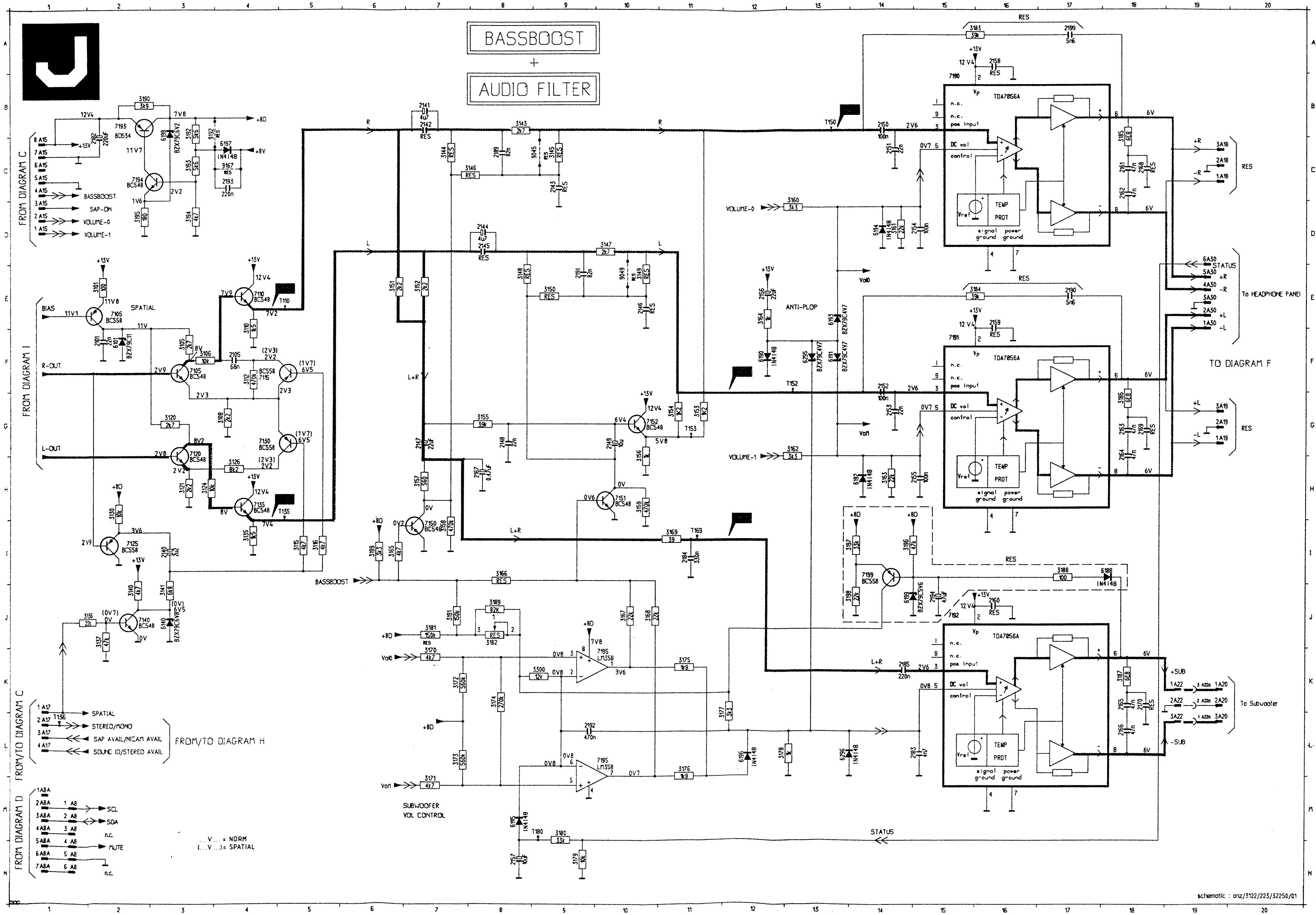
I/O + Interfacing


C-REAR
CVBS-SVHS
CVBS-INT
EXT (Y)
A/V
A/V+C
A/V+CHROMA
AUDIO-OUT
+8V
FROM/TO DIAGRAM B
Y-REAR
for NOT SVHS
9250
CVBS-REAR
(for NOT SVHS)
L-REAR
R-REAR
L-MONITOR
R-MONITOR
TO TUNER
FRONT-ID
CVBS-FRONT
CVBS-GND
L-FRONT
AUDIO-GND
R-FRONT
ADD IF THERE IS FRONT AV
F-ID
"H" = FRONT
"L" = REAR
REAR/FRONT AV-IN SWITCH
7220 HEF4053
7240 HEF4053
INT/EXT SWITCH
CVBS-EXT
L-INT FROM H
L-EXT
R-INT FROM H
R-EXT
A/V(8V)
H=INT
L=EXT
CVBS INT
7270 HEF4053
L-OUT
R-OUT
STEREO/MONO
H = MONO
L = STEREO
F-ID
NOT-SVHS
CVBS MONITOR
BIAS
TO DIAGRAM J
FROM/TO DIAGRAM Q
KAR SUPPLY
GND
SOUND
CVBS-MONITOR
R-MONITOR
L-MONITOR
CVBS
R
L
MONITOR-OUT
COMBINED I/O SOCKET
KARAOKE

1205	A 4
1210	M20
1210	M20
1210	M19
1210	F 5
1210	D 5
1210	G 5
2200	L23
2202	A 7
2205	B 8
2206	D 7
2209	B 9
2210	F 7
2211	F 6
2215	G 7
2216	G 6
2220	I 5
2221	J 6
2222	J 5
2223	K 6
2224	L 5
2226	L10
2235	N 9
2241	G12
2250	K14
2251	J14
2255	D20
2265	K20
2267	K20
2268	J20
2269	I21
2270	L20
2271	L21
2272	L16
2287	A10
2311	I14
2315	H11
2607	J 3
2612	L 3
3201	A 5
3202	A 7
3203	A 8
3204	B 7
3205	A 7
3206	D 7
3207	B 8
3208	C 6
3209	B 8
3210	E 5
3211	F 6
3212	A21
3213	F 6
3214	B20
3215	G 6
3216	G 6
3220	H 8
3221	H 7
3223	J 6
3224	J 6
3225	K 6
3226	I 6
3227	H 6
3228	L 6
3229	L 8
3230	M 8
3231	M 8
3232	M 8
3233	M 9
3235	N 9
3236	M11
3238	M11
3239	I11
3241	J 5
3242	G13
3243	K 5
3244	E13
3245	F12
3246	B12
3247	H10
3248	D14
3249	F13
3250	M12
3251	M13
3252	F 6
3253	I18
3254	G 6
3255	K18
3256	K15
3257	L17
3258	L17
3259	L16
3260	K18
3261	K16
3262	J15
3263	I17
3264	J17
3265	H18
3266	L20
3267	L20
3268	L20
3269	L20
3270	G16
3271	F18
3272	M16
3273	F18
3275	C18
3276	D18
3277	D18
3278	D18
3283	K18
3285	E20
3286	E20
3287	I21
3289	J21
3291	B14
3294	I21
3295	I21
3296	J21
3297	J21
3311	F14
3315	G12
3316	I11
3320	M13
3321	M12
3325	B13
3601	I 3
3602	I 2
3603	I 3
3607	J 2
3608	J 3
3612	K 2
3613	K 3
3900	E 2
3901	E 2
5200	K23
5201	C20
6201	A 6
6202	C 6
6203	B 6
6204	C 6
6205	D 6
6206	B21
6207	B20
6208	E 6
6217	I 5
6222	M19
6270	F17
6275	J18
6276	J18
6297	I 6
6298	G17
6602	I 2
6603	J 2
7205	B 7
7208	B 8
7219	I 8
7220	H 8
7221	I 8
7240	H11
7250	N12
7260	L18
7261	K18
7265	I18
7266	H18
7270	B15
7271	F18
7275	D18
7280	C19
7285	D20
7291	B14
7315	H11
7320	M13
7325	D14
9201	D 6
9215	H 9
9216	J 9
9217	K 9
9250	C 5
9607	J 2
9608	J 3
9612	L 2
9613	L 3
A13	A23
A35	M16
A35	M15
A35	M16
A35	M16
A35	M15
A36	M17
A36	M17
A40	I 5
A40	I 5
A40	I 5
A40	K 5
A40	K 5
A40	J 5
A41	H 5
F40	J 4
F40	K 4
F40	K 4
F40	I 4
F40	I 4
F40	I 4
F41	H 1

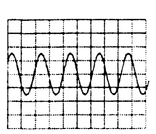
Amplification

Amplification


J
BASSBOOST
+
AUDIO FILTER
FROM DIAGRAM C
8 A15
7 A15
6 A15
5 A15
4 A15
3 A15
2 A15
1 A15
BASSBOOST
SAP-ON
VOLUME-0
VOLUME-1
12V4
7193 BD534
7194 BC548
11V7
1V6
2V2
7V8
+8D
+8V
6197 1N4148
9167 RES
2193 220n
6198 BZX79C4V2
BIAS
11V1
7106 BC558
SPATIAL
11V8
11V
FROM DIAGRAM I
R-OUT
L-OUT
7105 BC548
7110 BC548
7115 BC558
7120 BC548
7130 BC558
7135 BC548
7125 BC558
7140 BC548
6140 BZX79C6V8
T110
T155
R
L
L+R
2141 4u7
2142 RES
2144 4u7
2145 RES
3143 2k7
3147 2k7
3146 RES
3150 RES
9045
9049
7150 BC548
7151 BC548
7152 BC548
L+R
3169 39
T169
2184 330n
BASSBOOST
3166 RES
+8D
Vol0
Vol1
3181 150k
3189 82k
3182
3170 4k7
3171 4k7
3300 12k
7195 LM358
7195 LM358
3175 1k8
3176 1k8
2192 470n
3177 3k3
6196 1N4148
SUBWOOFER
VOL CONTROL
6195 1N4148
T180
3180 33k
2157 10uF
3179 10k
STATUS
T156
1 A17
2 A17
3 A17
4 A17
SPATIAL
STEREO/MONO
SAP AVAIL/NICAM AVAIL
SOUND I0/STEREO AVAIL
FROM/TO DIAGRAM C
FROM/TO DIAGRAM H
FROM DIAGRAM D
1A8A
2A8A
3A8A
4A8A
5A8A
6A8A
7A8A
1 A8
2 A8
3 A8
4 A8
5 A8
6 A8
SCL
SDA
n.c.
MUTE
n.c.
...V... = NORM
(...V...)= SPATIAL
T150
T152
VOLUME-0
VOLUME-1
3160 3k3
3162 3k3
ANTI-PLOP
+13V
3164 1k
6190 1N4148
6193 BZX79C4V7
6191 BZX79C4V7
6295 BZX79C4V7
6192 1N4148
6194 1N4148
Val0
Val1
7190
7191
7192
TDA7056A
n.c.
pos input
DC vol
control
Vp
Vref
TEMP
PROT
signal ground
power ground
2150 100n
2152 100n
2185 220n
2V6
0V7
0V8
6V
3183 39k
2199 5n6
3184 39k
2190 5n6
RES
+R
-R
+L
-L
3A18
2A18
1A18
3A19
2A19
1A19
6A30
5A30
4A30
3A30
2A30
1A30
STATUS
To HEADPHONE PANEL
TO DIAGRAM F
+8D
7199 BC558
6199 BZX79C5V6
3188 100
6188 1N4148
+SUB
-SUB
1A22
2A22
3A22
1A22a
2A22a
3A22a
1A20
2A20
3A20
To Subwoofer
schematic : anz/3122/223/32250/01
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
A
B
C
D
E
F
G
H
I
J
K
L
M
N

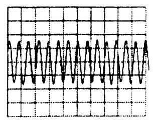
2101	F 2
2105	F 4
2140	I 3
2141	B 7
2142	B 7
2143	C 9
2144	D 8
2145	D 8
2146	E10
2147	G 7
2148	G 8
2149	G10
2150	B14
2151	C14
2152	F14
2153	G14
2154	D15
2155	H15
2156	E12
2157	N 8
2158	A16
2159	E16
2160	J16
2161	C18
2162	C18
2163	G18
2164	G18
2165	K18
2166	L18
2167	H 8
2168	C18
2169	G18
2170	K18
2182	B 2
2183	L15
2184	I11
2185	K14
2189	C 8
2190	E17
2191	E 9
2192	L 9
2193	C 4
2194	J15
2199	A17
3101	E 2
3105	F 3
3106	F 3
3108	G 4
3110	E 4
3112	F 4
3115	I 5
3116	I 5
3120	G 3
3121	H 3
3124	H 3
3126	H 4
3130	H 2
3135	I 4
3136	J 2
3137	J 2
3140	J 2
3141	J 3
3143	B 8
3144	C 7
3145	C 9
3146	C 8
3147	D10
3148	E 8
3149	E10
3150	E 9
3151	E 6
3152	E 7
3153	G11
3154	G11
3155	G 8
3156	G10
3157	H 7
3158	I 7
3159	H10
3160	D13
3161	D14
3162	G13
3163	H14
3164	E12
3165	I 6
3166	I 8
3167	J10
3168	J10
3169	I11
3170	K 7
3171	M 7
3172	K 7
3173	L 7
3174	K 8
3175	K11
3176	L11
3177	L12
3178	L12
3179	N 9
3180	M 9
3181	J 7
3182	J 8
3183	A16
3184	E16
3185	B18
3186	G18
3187	K18
3188	I17
3189	J 8
3190	B 2
3191	J 7
3192	B 3
3193	C 3
3194	D 3
3195	D 2
3196	I14
3197	I14
3198	J14
3199	I 6
3300	K 9
6101	F 2
6140	J 3
6188	I18
6190	F12
6191	F13
6192	H14
6193	E13
6194	D14
6195	M 8
6196	L12
6197	C 4
6198	B 3
6199	J14
6295	F13
6296	L13
7105	F 3
7106	E 2
7110	E 4
7115	F 4
7120	G 3
7125	I 2
7130	G 4
7135	H 4
7140	J 2
7150	I 7
7151	H10
7152	G10
7190	B15
7191	F15
7192	J15
7193	B 2
7194	C 2
7195	K10
7195	L10
7199	I14
9045	C 9
9049	E10
9167	C 4
9192	B 3
A15	D 1
A15	D 1
A15	D 1
A15	C 1
A15	C 1
A15	C 1
A15	C 1
A15	C 1
A17	K 1
A17	L 1
A17	L 1
A17	L 1
A18	C19
A18	C19
A18	C19
A19	G19
A19	G19
A19	G19
A20	K19
A20	K19
A20	L19
A22	K19
A22	K19
A22	L19
A22a	L19
A22a	K19
A22a	K19
A30	E19
A30	E19
A30	E19
A30	E19
A30	E19
A30	D19
A8	M 1
A8	M 1
A8	M 1
A8	N 1
A8	N 1
A8	N 1
A8A	M 1
A8A	M 1
A8A	M 1
A8A	M 1
A8A	N 1
A8A	N 1
A8A	N 1

TP59



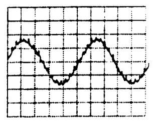
0,5V/div AC
0,5ms div

TP60



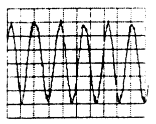
0,5V/div AC
0,5ms div

TP61



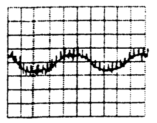
0,1V/div AC
0,2ms div

TP62



0,1V/div AC
0,2ms div

TP63

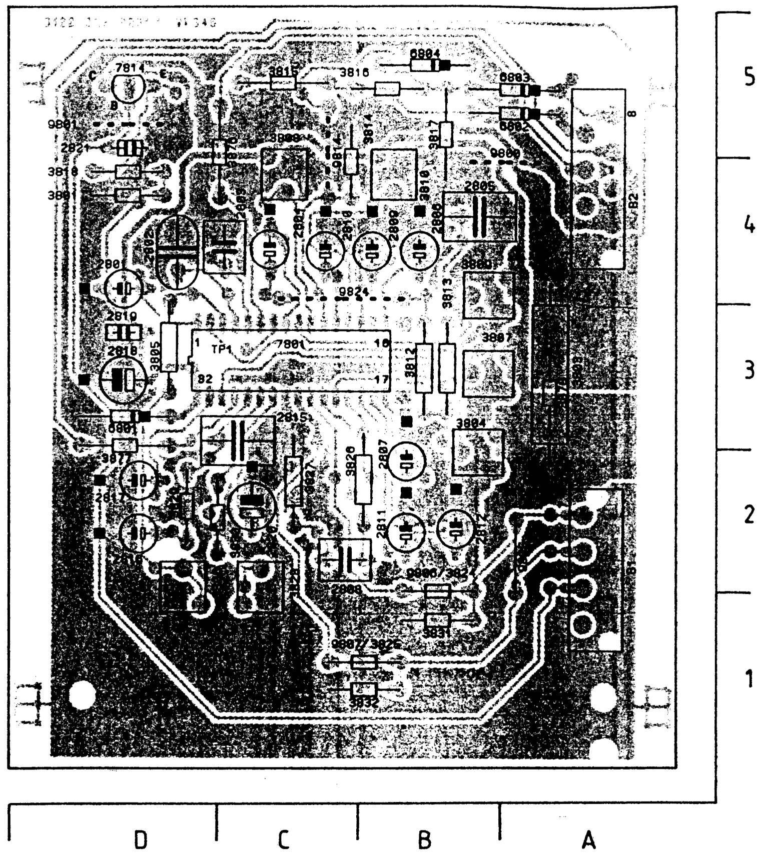


50V/div AC
0,2ms div

B1			A1
1	—	NC	7
2	—	IF - GND	6
3	←	FM - MONO	5
4	—	FM - GND	4
5	→	NICAM / BTSC - L - OUT	3
6	—	GND	2
7	→	NICAM / BTSC - R - OUT	1
B2			**A2**
1	—	+8V	8
2	—	GND	7
3	—	NC	6
4	—	NC	5
5	→	SAP - AVAIL	4
6	—	STEREO - AVAIL	3
7	—	SAP - ON	2
8	→	STEREO / MONO	1

CL 46532008/11S
270194

BTSC panel

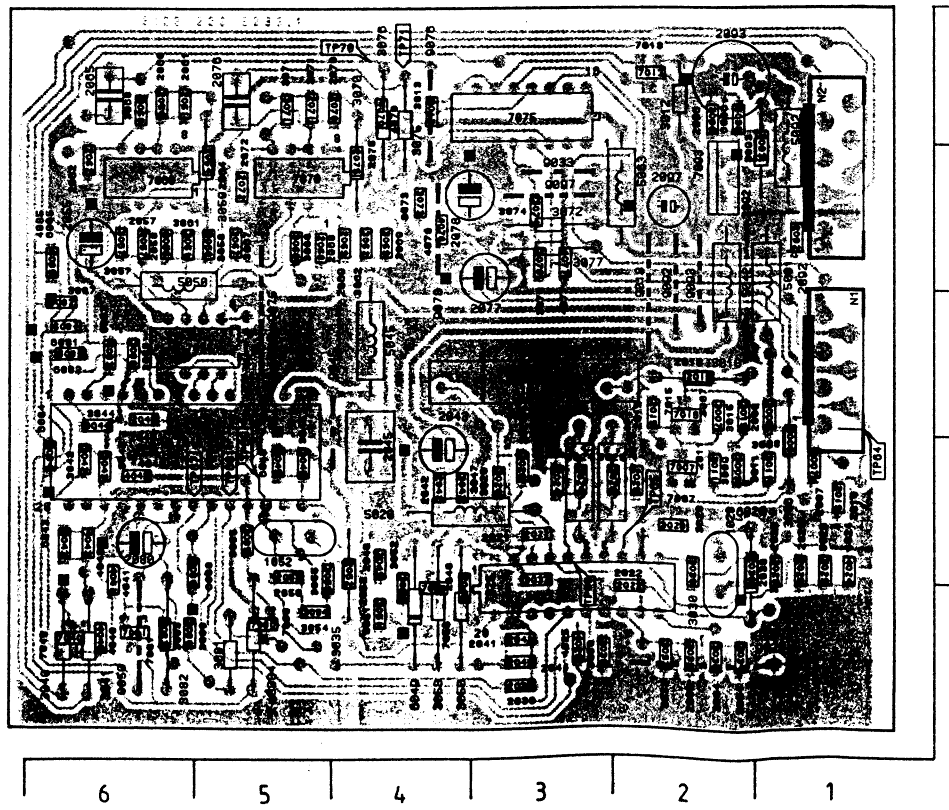


2801	D3
2802	D4
2803	D4
2804	C4
2805	B4
2806	B4
2807	B2
2808	C2
2809	C4
2810	C4
2811	B2
2812	B2
2815	D2
2816	D2
2817	D2
2818	D3
2819	D3
2820	D2
2821	D4
3801	D4
3803	A3
3804	B2
3805	D3
3806	D1
3807	B3
3808	C4
3809	B3
3810	C4
3812	B3
3813	B3
3814	C4
3815	C5
3816	C5
3817	B5
3818	D4
3824	B1
3825	C1
3826	C2
3827	C2
3828	C1
3829	D2
3830	D2
3831	B1
3832	C1
3876	D4
3877	D2
3878	A3
6801	D3
6802	B5
6803	B5
6804	B5
7801	C3
7814	D5
7814	D5
9800	B4
9801	D5
9805	B2
9806	B1
9807	C1
9814	C4
9824	C3
B1	A2
B2	A4

N1			A1
1	←	SIF	7
2	—	IF - GND	6
3	←	FM - MONO	5
4	—	FM - GND (AGND3)	4
5	→	NICAM / BTSC - L - OUT	3
6	—	GND	2
7	→	NICAM / BTSC - R - OUT	1
N2			**A2**
1	◄	+8V	8
2	—	GND	7
3	←	SCL	6
4	↔	SDA	5
5	↠	NICAM - AVAIL	4
6	—	NC	3
7	—	NC	2
8	—	NC	1

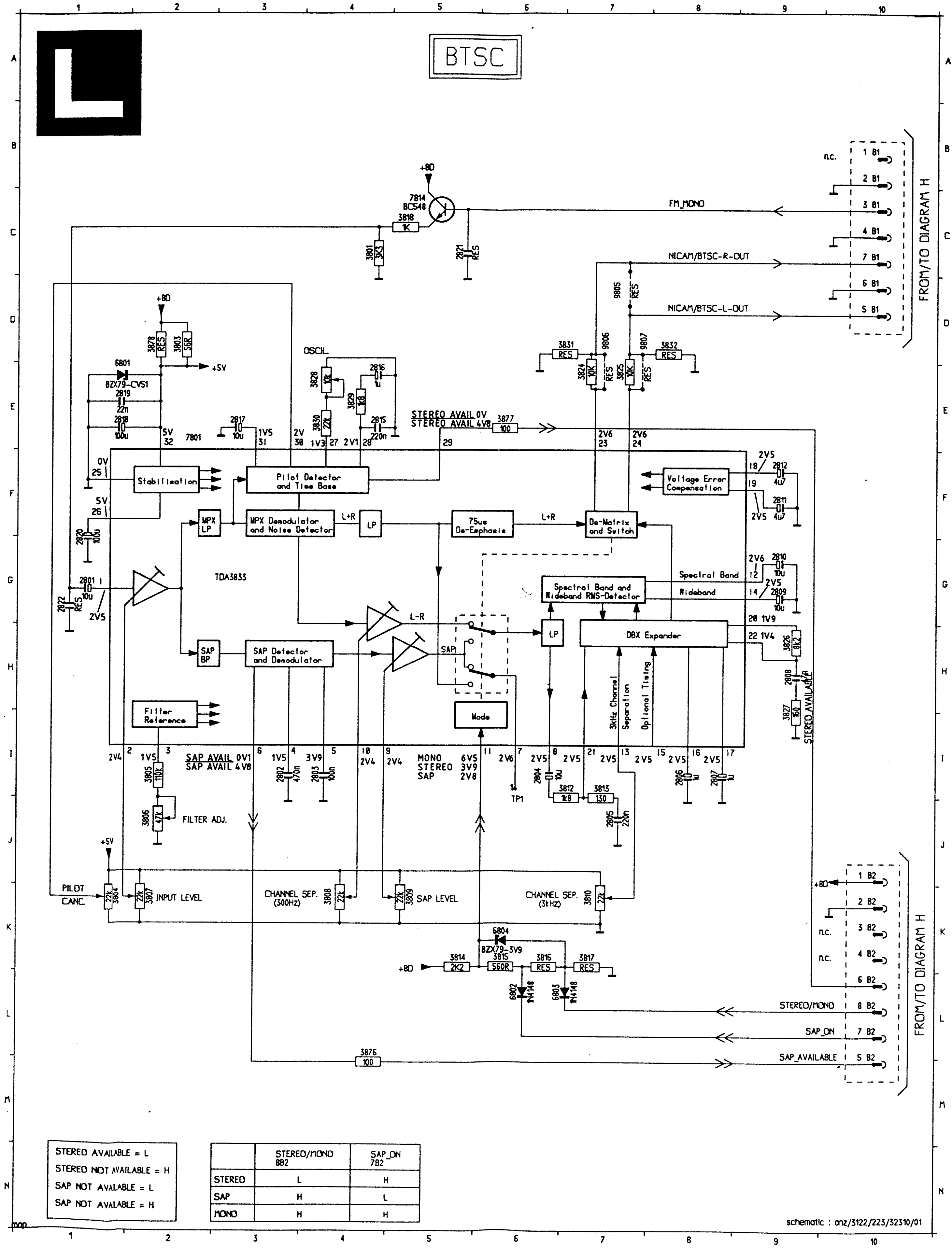
CL 46532008/11T
270194

NICAM panel



1018	C3
1028	B1
1052	B4
2007	B1
2008	C1
2011	B2
2015	C2
2018	C2
2019	B1
2020	B3
2021	B3
2022	A2
2024	B3
2025	B2
2028	B1
2029	B1
2030	B1
2033	A2
2034	A1
2038	A3
2039	A2
2040	A3
2041	A3
2042	B3
2043	B3
2044	A3
2045	B4
2046	C6
2049	B4
2050	A5
2052	B4
2055	D6
2057	D6
2058	D5
2060	E5
2061	E5
2062	D6
2064	D5
2065	E6
2068	D4
2069	D4
2070	E4
2071	E4
2072	D5
2075	D4
2076	E5
2077	D3
2078	D3
2080	B6
2092	D1
2093	E1
2096	E2
2097	D2
3006	B1
3007	C2
3008	B1
3009	B1
3011	B1
3012	E2
3013	E4
3015	C1
3018	C2
3020	B3
3024	B2
3025	B2
3028	B2
3029	B1
3030	B2
3033	A2
3034	A2
3035	B4
3037	A3
3040	A6
3041	A6
3042	B6
3043	B6
3044	C6
3045	B4
3047	B3
3050	A3
3051	A4
3052	A4
3053	A3
3054	A4
3055	A4
3057	D6
3058	D5
3059	D5
3060	E6
3061	D5
3062	D4
3067	D5
3068	D4
3069	D4
3070	D4
3071	E5
3072	D3
3073	D4
3074	D3
3075	E4
3076	E4
3077	D3
3078	D3
3080	A5
3081	A5
3082	A5
3083	A5
3084	A5
3085	B5
3086	C6
3087	C6
3092	D1
3093	D1
4024	B1
4025	A2
4040	A6
4041	A6
4043	B6
4045	B6
4070	E4
4077	D3
4078	D3
4078	D3
4085	D6
5001	D1
5020	B3
5024	B2
5025	B2
5042	D1
5045	C4
5050	D5
5063	D2
5092	D1
6028	B1
6043	B6
6045	B5
6049	A4
6080	B5
6081	C6
6082	C6
6083	C6
6084	B6
6085	D6
6096	E1
7007	B2
7013	E2
7015	C2
7025	A2
7040	A6
7045	B5
7050	A4
7055	C5
7060	D6
7070	D4
7075	E3
7080	A5
7081	A6
7093	D2
9018	C2
9025	A2
9033	D3
9045	C4
9050	A6
9075	C5
9076	E4
9078	D3
9092	D2
9093	D2
9097	D3
N1	C1
N2	D1

BTSC panel

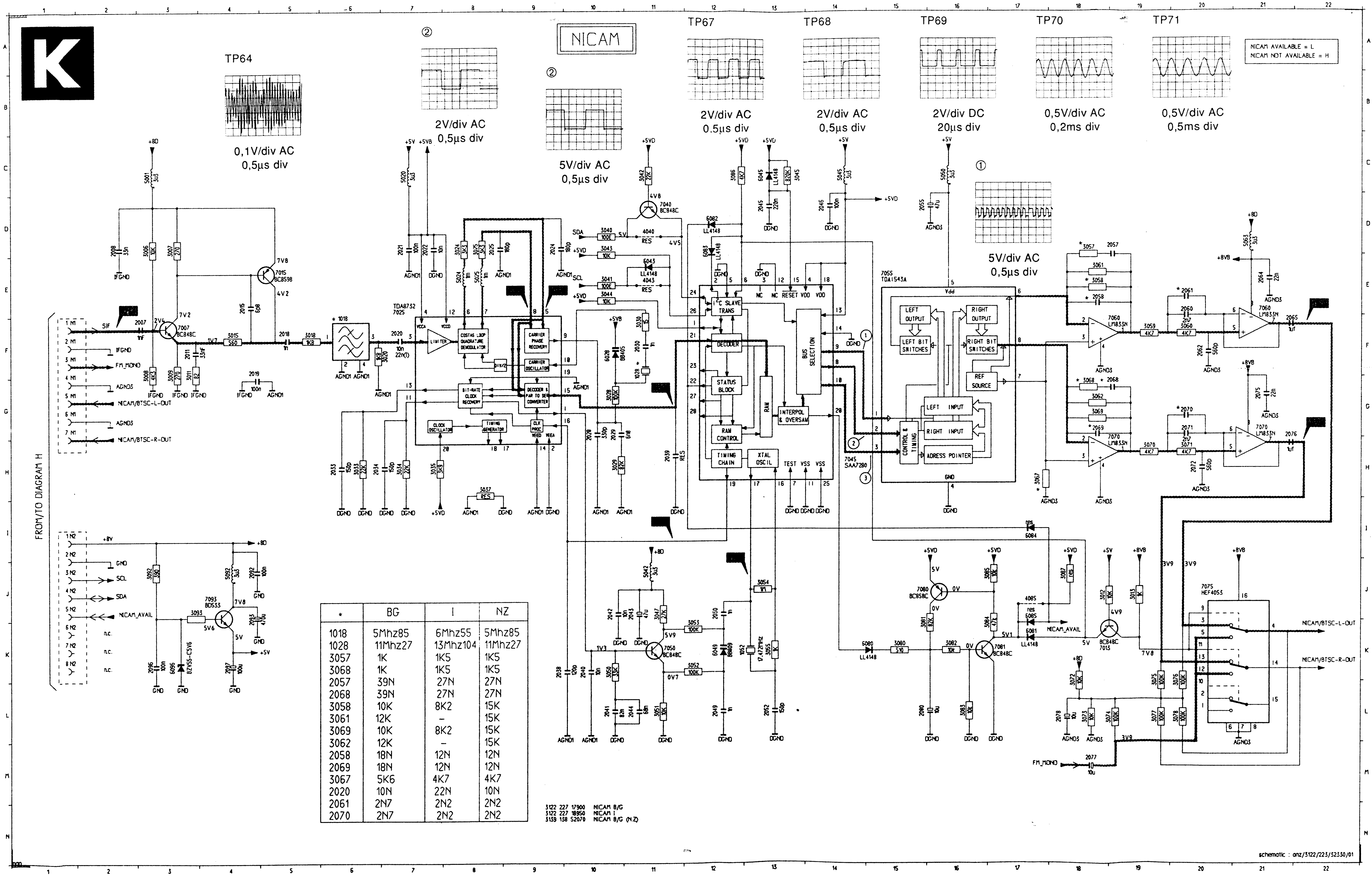

L
BTSC
+8D
7814
BC548
3818
1K
3801
3K3
2821
RES
FM_MONO
NICAM/BTSC-R-OUT
NICAM/BTSC-L-OUT
9805
RES
n.c.
1 B1
2 B1
3 B1
4 B1
7 B1
6 B1
5 B1
FROM/TO DIAGRAM H
+8D
3878
RES
3803
56R
+5V
6801
BZX79-CV51
2819
22n
2818
100u
OSCIL.
3828
10K
2816
1u
3829
1K8
3830
22K
2815
220n
2817
10u
STEREO AVAIL 0V
STEREO AVAIL 4V8
3877
100
3831
RES
3824
10K
9806
RES
3825
10K
9807
RES
3832
RES
5V
32
7801
1V5
31
2V
30
1V3
27
2V1
28
29
2V6
23
2V6
24
0V
25
Stabilisation
Pilot Detector and Time Base
2V5
18
2812
4u7
Voltage Error Compensation
19
2811
4u7
2V5
5V
26
MPX LP
MPX Demodulator and Noise Detector
L+R
LP
75us De-Emphasis
L+R
De-Matrix and Switch
2820
100u
2801
10u
2822
RES
2V5
TDA3833
Spectral Band and Wideband RMS-Detector
Spectral Band
Wideband
2V6
12
2810
10u
2V5
14
2809
10u
L-R
SAP
LP
DBX Expander
20
1V9
22
1V4
3826
8K2
2808
3827
150
STEREO AVAILABLE
SAP BP
SAP Detector and Demodulator
Mode
3kHz Channel Separation
Optional Timing
Filter Reference
2V4
2
3
1V5
SAP AVAIL 0V1
SAP AVAIL 4V8
6
1V5
4
3V9
5
10
2V4
9
2V4
MONO 6V5
STEREO 3V9
SAP 2V8
11
2V6
7
8
2V5
2V5
21
2V5
13
2V5
15
2V5
16
2V5
17
3805
110K
2802
470n
2803
100n
2804
10u
14
TP1
3812
1K8
3813
130
2805
220n
2806
1u
2807
1u
3806
47K
FILTER ADJ.
+5V
PILOT CANC.
3804
22K
3807
22K
INPUT LEVEL
CHANNEL SEP. (300HZ)
3808
22K
3809
22K
SAP LEVEL
CHANNEL SEP. (3kHZ)
3810
22K
6804
BZX79-3V9
3814
2K2
3815
560R
3816
RES
3817
RES
+8D
6802
1N4148
6803
1N4148
+8D
1 B2
2 B2
n.c.
3 B2
n.c.
4 B2
6 B2
STEREO/MONO
8 B2
SAP_ON
7 B2
SAP_AVAILABLE
5 B2
3876
100
FROM/TO DIAGRAM H

STEREO AVAILABLE = L
STEREO NOT AVAILABLE = H
SAP NOT AVAILABLE = L
SAP NOT AVAILABLE = H

	STEREO/MONO 8B2	SAP_ON 7B2
STEREO	L	H
SAP	H	L
MONO	H	H

schematic : anz/3122/223/32310/01

2801	G 1
2802	I 3
2803	I 4
2804	I 6
2805	J 7
2806	I 8
2807	I 8
2808	H 9
2809	G 9
2810	G 9
2811	F 9
2812	F 9
2815	E 4
2816	E 4
2817	E 3
2818	E 1
2819	E 1
2820	F 1
2821	C 5
2822	G 1
3801	C 4
3803	D 2
3804	K 1
3805	I 2
3806	J 2
3807	K 2
3808	K 4
3809	K 5
3810	K 7
3812	I 7
3813	I 7
3814	K 5
3815	K 6
3816	K 6
3817	K 7
3818	C 5
3824	E 7
3825	E 7
3826	H 9
3827	H 9
3828	E 4
3829	E 4
3830	E 4
3831	D 7
3832	D 8
3876	L 4
3877	E 6
3878	D 2
6801	D 1
6802	L 6
6803	L 6
6804	K 6
7801	E 2
7814	C 5
9805	D 7
9806	D 7
9807	D 7
B1	B10
B1	B10
B1	C10
B1	C10
B1	D10
B1	D10
B1	C10
B2	J10
B2	K10
B2	K10
B2	K10
B2	L10
B2	L10
B2	L10
B2	L10

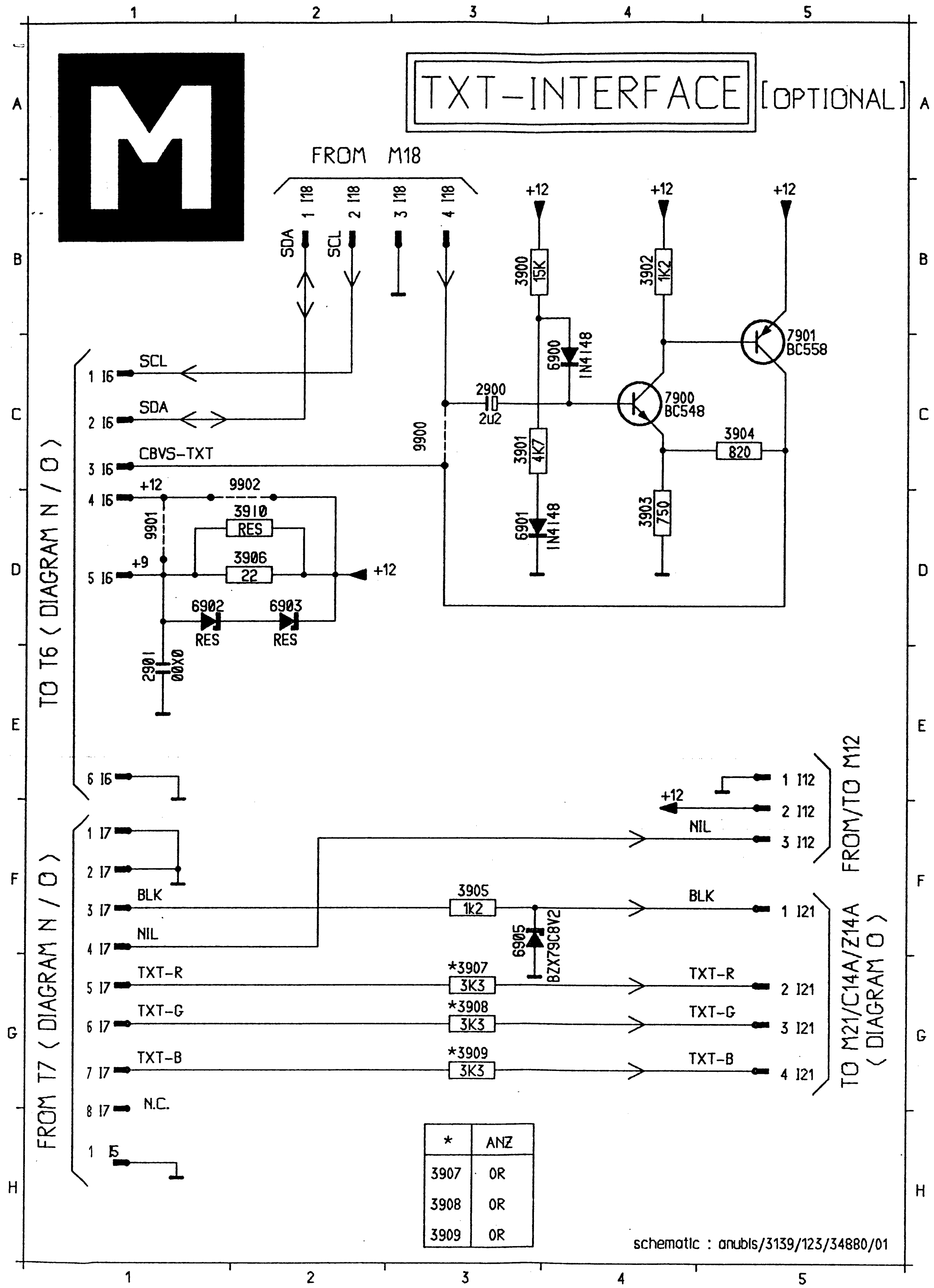

K
TP64
0,1V/div AC
0,5µs div
②
2V/div AC
0,5µs div
②
NICAM
5V/div AC
0,5µs div
TP67
2V/div AC
0.5µs div
TP68
2V/div AC
0,5µs div
TP69
2V/div DC
20µs div
TP70
0,5V/div AC
0,2ms div
TP71
0,5V/div AC
0,5ms div
①
5V/div AC
0,5µs div
NICAM AVAILABLE = L
NICAM NOT AVAILABLE = H
FROM/TO DIAGRAM H
SIF
FM_MONO
NICAM/BTSC-L-OUT
NICAM/BTSC-R-OUT
NICAM_AVAIL
SCL
SDA
TDA8732
7025
LIMITER
COSTAS LOOP QUADRATURE DEMODULATOR
CARRIER PHASE RECOVERY
CARRIER OSCILLATOR
DIV/2
BIT-RATE CLOCK RECOVERY
DECODER & PAR TO SER CONVERTER
CLOCK OSCILLATOR
TIMING GENERATOR
CLK PROC
7045
SAA7280
I²C SLAVE TRANS
DECODER
STATUS BLOCK
RAM CONTROL
RAM
TIMING CHAIN
XTAL OSCIL
INTERPOL & OVERSAM
BUS SELECTION
RESET
TEST
7055
TDA1543A
LEFT OUTPUT
RIGHT OUTPUT
LEFT BIT SWITCHES
RIGHT BIT SWITCHES
REF SOURCE
LEFT INPUT
RIGHT INPUT
CONTROL & TIMING
ADRESS POINTER
7060
LM1833N
7070
LM1833N
7075
HEF4055
7007 BC848C
7015 BC858B
7040 BC848C
7050 BC848C
7080 BC858C
7081 BC848C
7013 BC848C
7093 BD533
schematic : anz/3122/223/52330/01

*	BG	I	NZ
1018	5Mhz85	6Mhz55	5Mhz85
1028	11Mhz27	13Mhz104	11Mhz27
3057	1K	1K5	1K5
3068	1K	1K5	1K5
2057	39N	27N	27N
2068	39N	27N	27N
3058	10K	8K2	15K
3061	12K	–	15K
3069	10K	8K2	15K
3062	12K	–	15K
2058	18N	12N	12N
2069	18N	12N	12N
3067	5K6	4K7	4K7
2020	10N	22N	10N
2061	2N7	2N2	2N2
2070	2N7	2N2	2N2

3122 227 17900 NICAM B/G
3122 227 18950 NICAM I
3139 138 52070 NICAM B/G (N.Z)

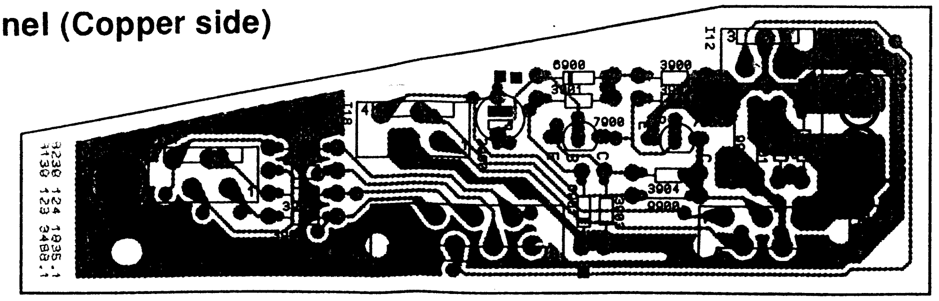
1018	F 6
1028	F11
1052	K12
2007	F 3
2008	D 2
2011	F 3
2015	E 4
2018	F 5
2019	F 4
2020	F 7
2021	D 7
2022	D 7
2024	D 9
2025	D 8
2028	G10
2029	G10
2030	F11
2033	H 6
2034	H 6
2038	K 9
2039	H11
2040	K10
2041	L10
2042	J10
2043	J11
2044	L11
2045	D13
2046	D14
2049	L12
2050	J12
2052	L13
2055	D15
2057	D19
2058	E18
2060	E20
2061	E20
2062	F20
2064	E21
2065	F21
2068	G19
2069	G18
2070	G20
2071	G20
2072	H20
2075	G21
2076	G21
2077	M18
2078	L18
2080	L15
2092	J 4
2093	J 4
2096	K 3
2097	K 4
3006	D 3
3007	D 3
3008	F 3
3009	F 3
3011	F 3
3012	J18
3013	J19
3015	F 4
3018	F 5
3020	F 7
3024	D 8
3025	D 8
3028	G10
3029	H10
3030	F11
3033	H 6
3034	H 7
3035	H 7
3037	H 8
3040	D10
3041	E10
3042	C11
3043	D10
3044	E10
3045	C13
3047	J11
3050	K10
3051	L11
3052	K12
3053	K12
3054	J13
3055	K13
3057	D18
3058	E18
3059	F19
3060	F20
3061	E18
3062	G18
3067	H17
3068	G18
3069	G18
3070	H19
3071	H20
3072	K18
3073	L18
3074	L19
3075	K19
3076	K20
3077	L19
3078	L20
3080	K15
3081	K15
3082	K16
3083	L16
3084	K17
3085	J17
3086	C12
3087	J18
3092	J 3
3093	J 3
4040	D11
4043	E11
4085	J17
5001	C 3
5020	C 7
5024	E 8
5025	E 8
5042	J11
5045	C14
5050	C16
5063	D21
5092	J 4
6028	F10
6043	E11
6045	C13
6049	K12
6080	K15
6081	K17
6082	D12
6083	D12
6084	I17
6085	J17
6096	K 3
7007	F 3
7013	K18
7015	E 5
7025	E 7
7040	D11
7045	H14
7050	K11
7055	E15
7060	E21
7060	F18
7070	H18
7070	G21
7075	J20
7080	J16
7081	K17
7093	J 4
N1	F 1
N1	F 1
N1	F 1
N1	F 1
N1	G 1
N1	G 1
N1	G 1
N2	I 1
N2	I 1
N2	J 1
N2	J 1
N2	J 1
N2	K 1
N2	K 1
N2	K 1

TXT interface panel (FLOF ECCT) /

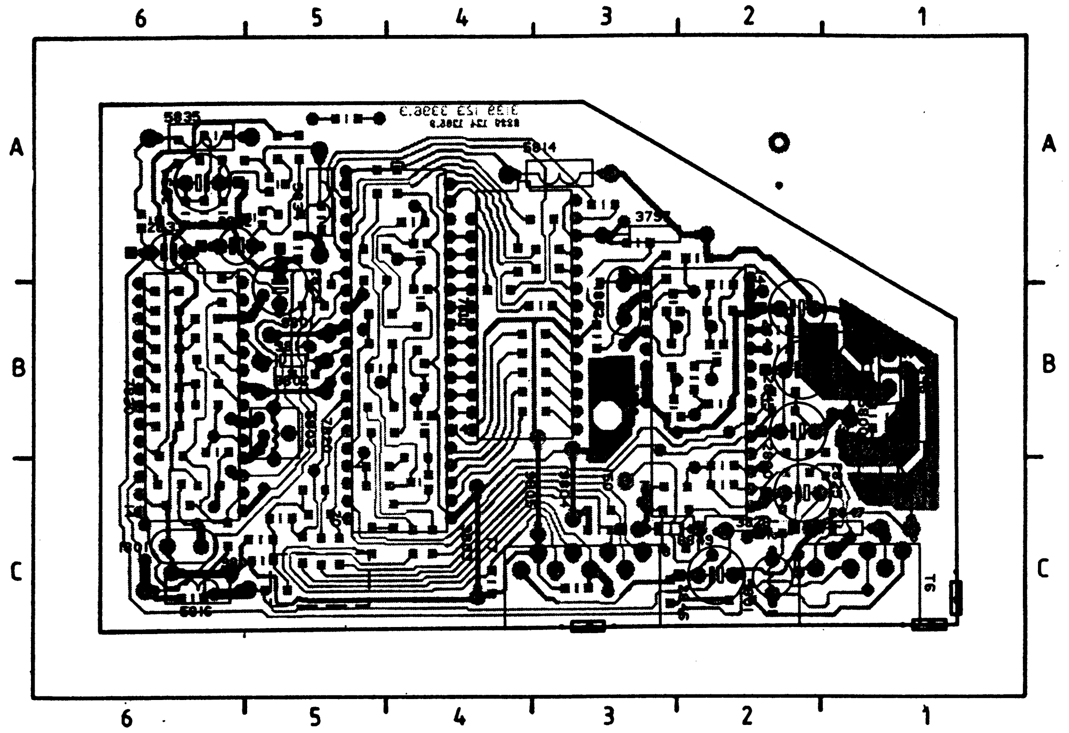

M
TXT-INTERFACE [OPTIONAL]
FROM M18
1 I18
2 I18
3 I18
4 I18
SDA
SCL
+12
3900 15K
3902 1K2
6900 1N4148
7901 BC558
7900 BC548
2900 2u2
3901 4K7
3904 820
3903 750
6901 1N4148
9900
SCL
SDA
CBVS-TXT
1 I6
2 I6
3 I6
4 I6
5 I6
6 I6
+12
9902
9901
3910 RES
3906 22
+9
+12
6902 RES
6903 RES
2901 00X0
TO T6 (DIAGRAM N / O)
1 I12
2 I12
3 I12
+12
NIL
FROM/TO M12
1 I7
2 I7
3 I7
4 I7
5 I7
6 I7
7 I7
8 I7
BLK
NIL
TXT-R
TXT-G
TXT-B
N.C.
3905 1k2
6905 BZX79C8V2
*3907 3K3
*3908 3K3
*3909 3K3
BLK
TXT-R
TXT-G
TXT-B
1 I21
2 I21
3 I21
4 I21
TO M21/C14A/Z14A (DIAGRAM O)
FROM T7 (DIAGRAM N / O)
1 I5
* ANZ
3907 0R
3908 0R
3909 0R
schematic : anubis/3139/123/34880/01
1 2 3 4 5
A B C D E F G H

2900	C 3
2901	E 1
3900	B 3
3901	C 3
3902	B 4
3903	D 4
3904	C 5
3905	F 3
3906	D 2
3907	G 3
3908	G 3
3909	G 3
3910	D 2
6900	C 4
6901	D 3
6902	D 1
6903	D 2
6905	F 3
7900	C 4
7901	C 5
9900	C 3
9901	D 1
9902	C 2
I12	E 5
I12	F 5
I12	F 5
I18	B 2
I18	B 2
I18	B 3
I18	B 3
I21	F 5
I21	G 5
I21	G 5
I21	G 5
I5	H 1
I6	C 1
I6	C 1
I6	C 1
I6	D 1
I6	D 1
I6	E 1
I7	F 1
I7	F 1
I7	F 1
I7	F 1
I7	G 1
I7	G 1
I7	G 1
I7	H 1

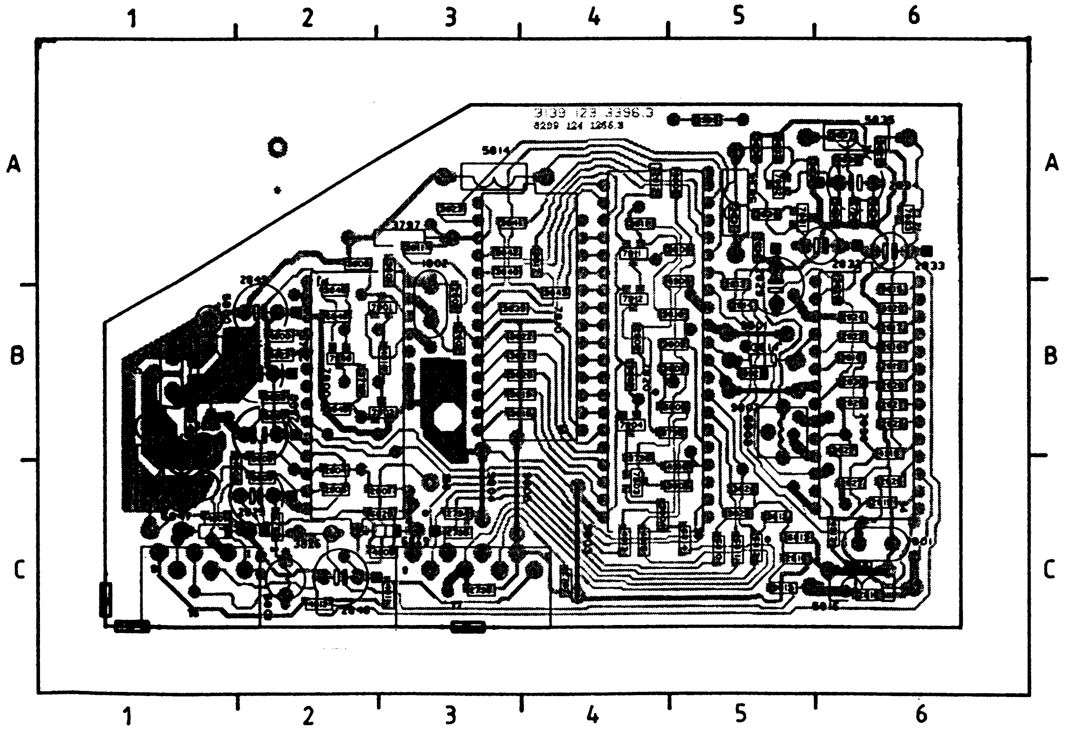
TXT interface panel (Copper side)


6900
3901
3900
7900
3904
9900
I12
I18
3136 124 1835.1
3130 123 3488.1

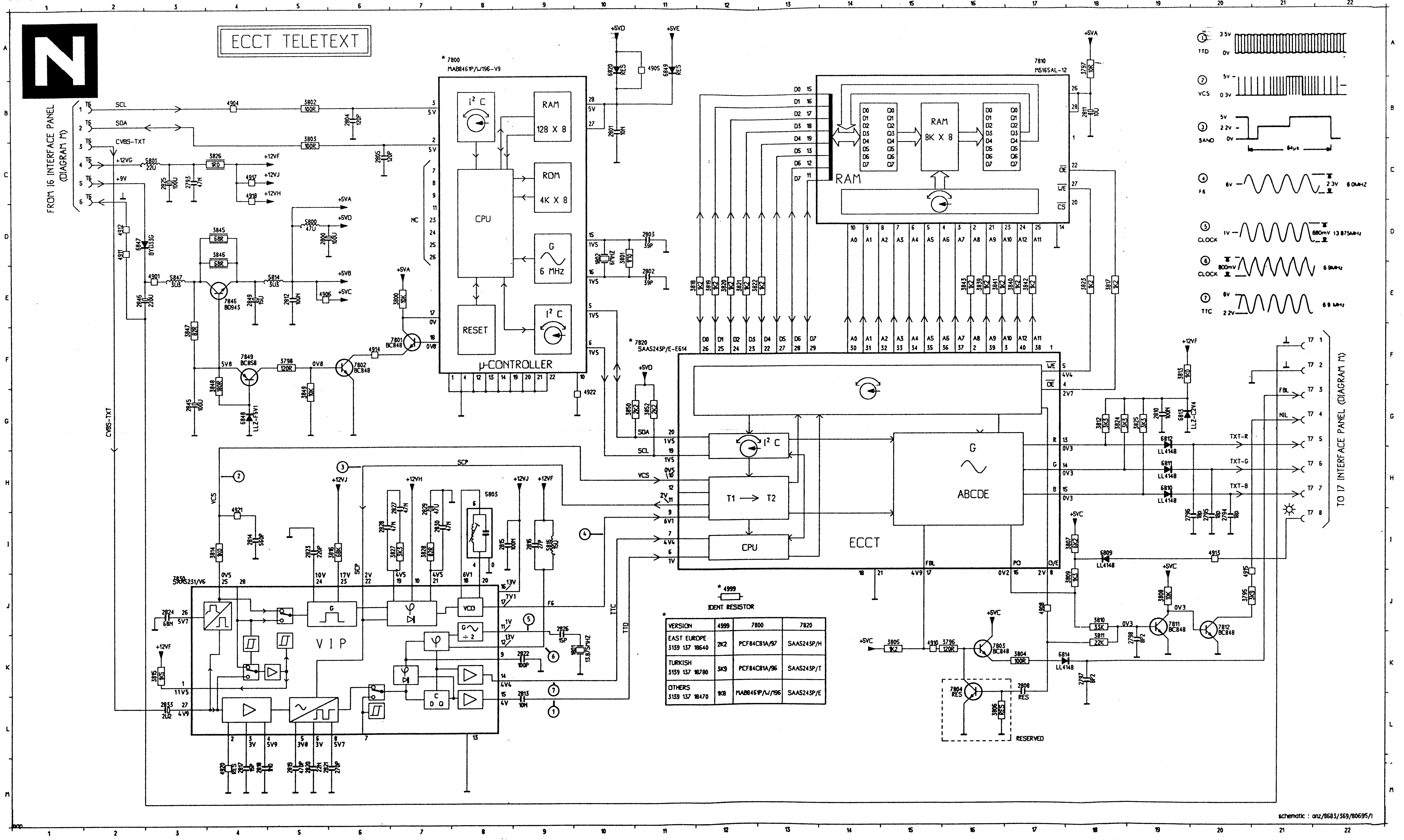
Panel interface TXT (FLOF ECCT)


6 5 4 3 2 1
A B C
5835
5814
3797
T6
5816
3139 123 3396.3

1801	C6	2814	B5	2834	A6	3811	A4	3830	A5	3850	B2	5800	B1	7801	B2	9805	C4
1802	A3	2815	C6	2836	A5	3812	C5	3831	A5	3852	B2	5801	C2	7802	B2	T6	C1
2793	C2	2816	C6	2846	C2	3813	C5	3832	A5	3999	A5	5803	B5	7803	C4	T7	C3
2794	C3	2817	B6	2849	B2	3814	B5	3833	A5	4900	B2	5814	A3	7804	B4		
2795	C3	2818	B6	3795	B4	3815	B6	3834	A5	4901	C1	5816	C6	7810	B4		
2796	C3	2819	B6	3796	C4	3816	B6	3835	A6	4904	C1	5834	A5	7811	A4		
2797	C4	2820	B6	3797	A3	3817	A4	3836	A6	4905	C2	5835	A6	7812	B4		
2798	A6	2821	B6	3798	B2	3818	B3	3837	A6	4906	A5	5847	B1	7820	B4		
2800	B2	2822	B6	3800	A2	3819	B3	3838	A6	4908	B5	6809	B4	7830	B6		
2801	C2	2823	B6	3801	A3	3820	B3	3839	B3	4910	C4	6810	C5	7831	A5		
2802	B3	2824	B6	3802	B2	3821	B3	3840	A3	4911	C3	6811	C5	7832	A5		
2803	B3	2825	C2	3803	C2	3822	B3	3841	A3	4912	C2	6812	C5	7833	A6		
2804	C2	2826	C6	3804	C4	3823	A3	3842	A3	4913	C4	6813	C5	7846	B1		
2806	C2	2827	C6	3805	C4	3824	C5	3843	B4	4915	C4	6814	C5	7849	B2		
2808	B4	2828	B6	3806	B4	3825	C5	3845	B1	4917	C6	6820	C2	9800	C6		
2810	C5	2829	A5	3807	B4	3826	C2	3846	B1	4918	B6	6847	C1	9801	B5		
2811	A3	2830	B6	3808	A5	3827	B6	3847	B1	4920	B6	6848	B2	9802	B5		
2812	A4	2832	A6	3809	B4	3828	B6	3848	B2	4921	B5	6849	C3	9803	C4		
2813	B5	2833	A6	3810	B4	3829	A6	3849	B2	4922	B2	7800	B2	9804	C3		


1 2 3 4 5 6
A B C
3139 123 3396.3
5814
3797
2833
5816

1801	K10	2796	I19	2802	E11	2810	G19	2815	I 8	2820	M 5	2825	C 3	2830	I 7	3795	J20	3801	D10	3806	L16	3811	K18	3816	I 6	3821	E12	3826	C 4	3841	E16	3847	F 3	4901	E 3	4910	K15	4915	J20	4922	G10	5816	I 9	6812	G19	6848	G 4	7803	K16	7820	F11	T6	B 2	T7	F21	T7	H21
1802	D10	2797	K18	2803	D11	2811	B18	2816	I 9	2821	M 5	2826	J 9	2833	L 3	3796	K16	3802	B 5	3807	I18	3812	G18	3817	E18	3822	E12	3827	I 7	3842	E17	3848	F 4	4904	B 4	4911	D 2	4917	C 4	5800	D 5	5847	E 3	6813	G19	6849	A11	7804	K16	7830	J 3	T6	C 2	T7	F21	T7	H21
2793	C 3	2798	K19	2804	B 6	2812	E 5	2817	M 4	2822	K 9	2827	H 7	2845	G 3	3797	A18	3803	B 5	3808	J19	3813	F19	3818	E11	3823	E18	3828	I 7	3843	E16	3849	G 5	4905	A11	4912	D 2	4918	C 4	5801	C 3	6809	I18	6814	K17	7800	A 7	7810	A17	7846	E 4	T6	C 2	T7	G21	T7	I21
2794	I20	2800	D 5	2805	C 6	2813	L 9	2818	M 4	2823	I 5	2828	I 6	2846	E 2	3798	F 5	3804	K17	3809	J18	3814	I 4	3819	E12	3824	G18	3839	E16	3845	D 4	3850	G10	4906	E 5	4913	I20	4920	M 4	5803	H 8	6810	H19	6820	A10	7801	F 7	7811	J19	7849	F 4	T6	C 2	T7	G21		
2795	I20	2801	B10	2808	K17	2814	I 4	2819	M 5	2824	J 3	2829	H 7	2849	E 4	3800	E 7	3805	K15	3810	J18	3815	K 3	3820	E12	3825	G19	3840	E17	3846	D 4	3852	G11	4908	J17	4914	F 6	4921	I 4	5814	E 5	6811	H19	6847	D 2	7802	F 6	7812	J20	T6	B 2	T6	C 2	T7	G21		


N
ECCT TELETEXT
FROM I6 INTERFACE PANEL (DIAGRAM M)
TO I7 INTERFACE PANEL (DIAGRAM M)
SCL
SDA
CVBS-TXT
+12VG
+9V
+12VF
+12VJ
+12VH
+5VA
+5VD
+5VE
+5VB
+5VC
7800
MAB8461P/W196-V9
I² C
RAM 128 X 8
ROM 4K X 8
CPU
G
6 MHz
RESET
μ-CONTROLLER
7810
MS165AL-12
RAM 8K X 8
RAM
7820
SAA5243P/E-E614
T1 → T2
ABCDE
ECCT
7830
SAA5231/V6
VIP
VCS
SCP
TTC
TTD
F6
FBL
NIL
TXT-R
TXT-G
TXT-B
7845
BD943
7849
BC858
7801
BC848
7802
BC848
7803
BC848
7804
RES
7811
BC848
7812
BC848
6847
BYD33G
6848
LLZ-C5V1
6813
LLZ-C2V4
6812
LL4148
6811
LL4148
6810
LL4148
6809
LL4148
6814
LL4148
5803
RESERVED
TTD 3.5V 0V
VCS 5V 0.3V
SAND 5V 2.2V 0V 64μs
F6 6V 2.3V 6.0MHz
CLOCK 1V 680mV 13.875MHz
CLOCK 800mV 6.9MHz
TTC 6V 2.2V 6.9 MHz
schematic : anz/8683/369/80695/1

* 4999

IDENT RESISTOR

*

VERSION	4999	7800	7820
EAST EUROPE 3139 137 18640	2K2	PCF84C81A/97	SAA5243P/H
TURKISH 3139 137 18780	3K9	PCF84C81A/96	SAA5243P/T
OTHERS 3139 137 18470	1K8	MAB8461P/W/196	SAA5243P/E

I7		T7
1	— NC	8
2	← B	7
3	← G	6
4	← R	5
5	← NIL	4
6	← BLK	3
7	— GND	2
8	— GND	1

I21		C14A
1	→ BLANKING	4
2	→ TXT R	3
3	→ TXT G	2
4	→ TXT B	1

I21	FOR NO MULTI - SOUND	M21
1	→ BLANKING	4
2	→ TXT R	3
3	→ TXT G	2
4	→ TXT B	1

I18		M18
1	↔ SDA	4
2	← SCL	3
3	— GND	2
4	← CVBS - TXT	1

I12		M12
1	— GND	3
2	← +12V / +5.5V	2
3	→ NIL	1

I6		T6
1	→ SCL	
2	↔ SDA	
3	→ CVBS - TXT	
4	→ +12V	
5	→ +9V	
6	— GND	

CL 46532008/11U
270194

T7		I7
1	— GND	8
2	— GND	7
3	→ BLK	6
4	→ NIL	5
5	→ R	4
6	→ G	3
7	→ B	2
8	— NC	1

T6		I6
1	← SCL	1
2	↔ SDA	2
3	← CVBS - TXT	3
4	← +12V	4
5	← +9V	5
6	— GND	6

[illegible]532008/11V
270194

7. Electrical adjustments

1. Settings on the carrier panel

1.1 +95V / +115V power supply voltage

Connect a multimeter (DC) across C2531. Set brightness at mid position and contrast at maximum. Apply a pattern generator with a colour bar. Adjust potentiometer **3512** to +95V ± 0.5V, DC / +115 ± 0.5V.

1.2 Horizontal centring

Is adjusted with potentiometer 3420.

1.3 Picture width (horizontal amplitude) 25" only

Is adjusted with potentiometer 3484.

1.4 East west correction 25" only

Is adjusted with potentiometer 3489.

1.5 Vertical centring

Is adjusted with switch 3408.

1.6 Picture height

Is adjusted with potentiometer 3410.

1.7 Focusing

Is adjusted with the focusing potentiometer in the line output transformer 5445 (if necessary brightness at minimum and contrast at maximum).

1.8 RF AGC adjustment

Connect pattern generator (e.g. PM5518) to the aerial input with RF signal amplitude = 1 mV. Connect a multimeter (DC) at pin 5 of tuner. Adjust **R3264** so that voltage at pin 5 of tuner is 7.5 ± 0.5V DC.

1.9 Picture demodulator adjustment

Connect a pattern generator (e.g. PM5518) with a cross hatch. Connect an oscilloscope (1μs/DIV) to pin 7 of IC7225 and adjust **L5260** so that the overshoot response is minimum, see Fig. 7.1.
Select a colour bar signal and verify if the picture is alright.

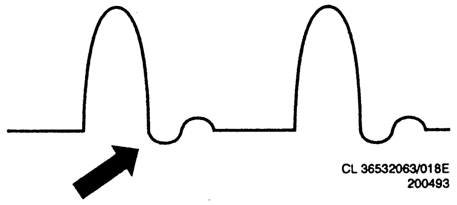

CL 36532063/018E
200493

Fig. 7.1

1.10 Adjustment of 34.4 MHz carrier trap (for full multi sets only, so -/56/57/69/70/93)

Switch off the set.
Disconnect pin 17 of the tuner by desoldering the V-cut at pin 17 of the tuner. Switch on the set and force it to M-reception via the second install menu. Connect a signal generator at 34.4 MHz at pin 4 of plug M3. Connect an oscilloscope (1μs/DIV) to pin 1 of the SAW filter 1015 and adjust **L5020** for minimum amplitude of the signal.
Resolder the V-cut to reconnect the tuner.

2. Settings on the CRT panel

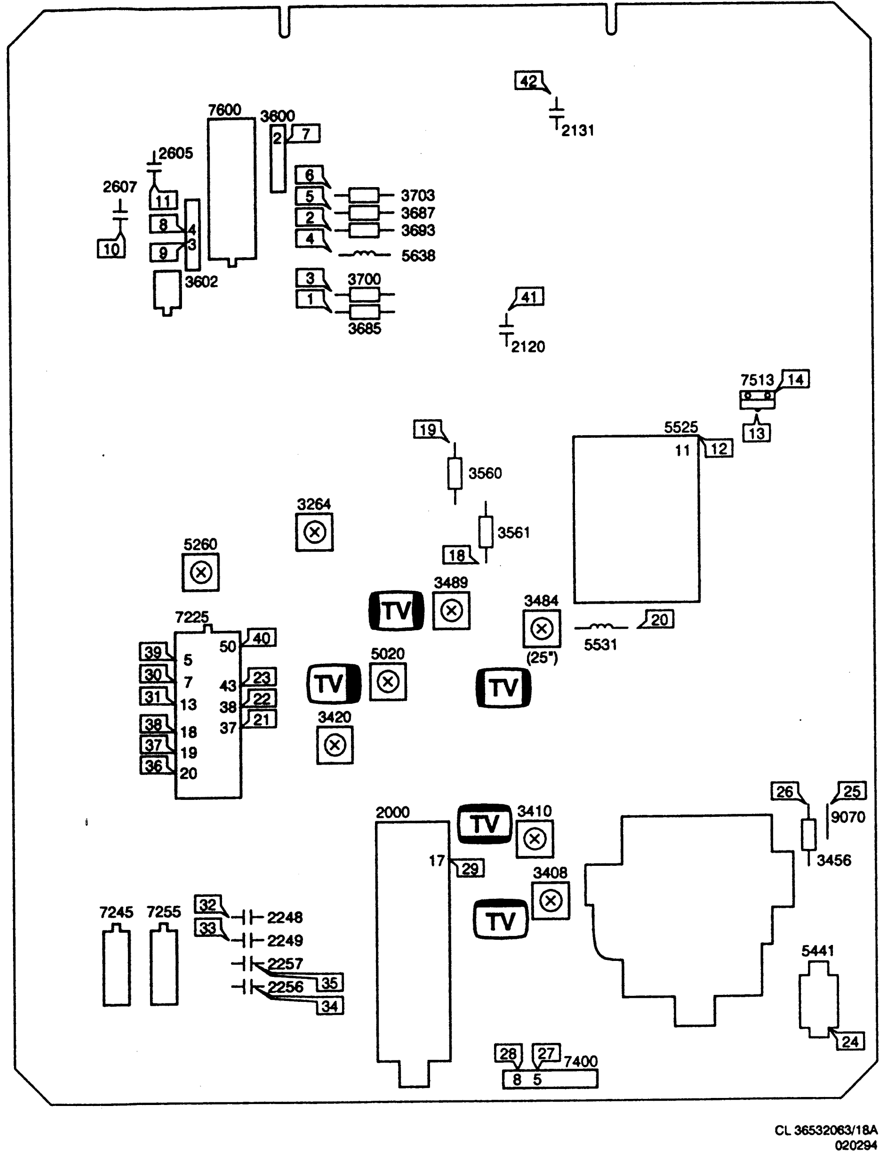
2.1 VG2 cut off adjustment

Connect a pattern generator (e.g. PM5518) and set it to white raster pattern.
Set contrast and the Vg2 potentiometer (in line output transformer) minimum. Adjust with brightness control the top video level at pin 4 of plug L7 (on CRT panel) to the same voltage level as the emitter of transistor of transistor TS7325.
Note: store this value as Personal Preference (PP)!!
Pre-adjust the black level preset potentiometers of each gun, **3307** (B), **3320** (G) and **3334** (R), to give a black level of 140V on pins 11, 6 and 8 on the picture tube socket.
Remove probe of voltmeter or oscilloscope.
Adjust the Vg2 potentiometer until one of the colours just becomes visible. Adjust the **other** two guns by means of the corresponding resistors (3307, 3320 or 3334) until the colours just become visible or until the picture is white.

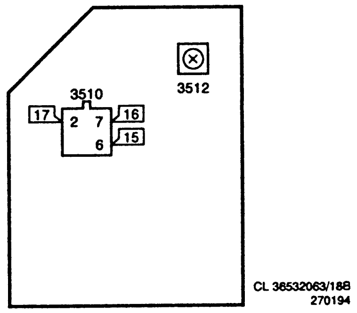
2.2 White-D adjustment

Use the same signal as prescribed in 2.1. Adjust contrast to such a level that red is good visible.
Adjust potentiometers **3313** (B) and **3314** (G) to have a correct White-D picture.
Note: Store nominal values for contrast, saturation and brightness as Personal Preference when settings 2.1 and 2.2 have been carried out.

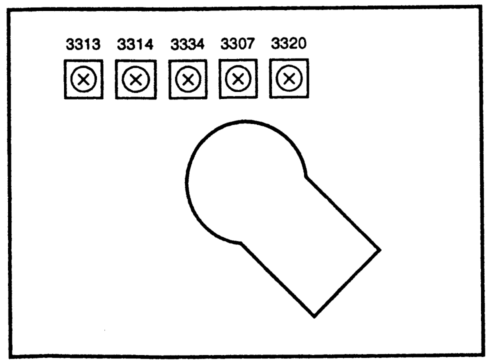
MAIN CARRIER (component side)


42
2131
7600
3600
2
7
2605
2607
11
8
4
3
9
10
3602
6
5
2
4
3703
3687
3693
5638
3
1
3700
3685
41
2120
7513
14
13
5525
11
12
19
3560
3561
18
3264
5260
3489
3484
(25")
20
5531
TV
5020
TV
TV
7225
50
40
39
5
30
7
43
23
31
13
38
22
38
18
37
21
37
19
36
20
3420
26
25
9070
3456
2000
TV
3410
17
29
3408
TV
7245
7255
32
2248
33
2249
2257
35
2256
34
5441
24
28
27
7400
8
5
CL 36532063/18A
020294

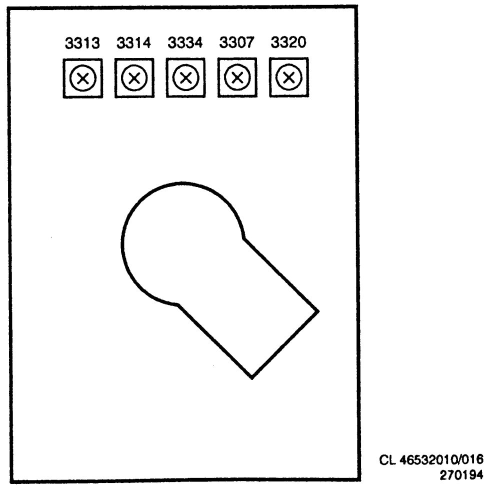
POWER SUPPLY
CONTOL PANEL


3512
3510
17
2
7
16
6
15
CL 36532063/18B
270194

CRT PANEL 21"


3313
3314
3334
3307
3320

CRT PANEL 25"


3313
3314
3334
3307
3320
CL 46532010/016
270194

3. Adjusting the picture tube

Note:
The colour purity and convergence adjustments described hereafter need only be carried out if a completely new adjustment is called for or if a new picture tube has been fitted.
Otherwise, for instance after replacing the deflection unit, it will not be necessary to remove the rubberwedges (G in Fig. 4). corrections by means of the multi-pole unit will then suffice.

3.1 Colour purity (see Fig. 4)

1. Loosen fixing screw "F" of the deflection unit a few turns.
2. Move the deflection unit and remove the three rubber wedges "G".
3. Slide the deflection unit forward as far as possible against the glass of the picture tube cone and tighten fixing screw "F" in such a manner that the deflection unit can be moved with some friction.
4. Place the multi-pole unit in the position shown, turn screw "A" and turn securing ring 'B' counter clockwise.
5. Let the apparatus face East or West and switch on the set.
   Supply a cross-hatch pattern and set brightness control to maximum. Allow for a warming-up time of 10 minutes.
6. Adjust the static convergence, using tabs "C" and "D" (if necessary, see procedure II).
7. Switch off the green and the blue gun by disconnecting the resistors 3316 and 3303.
8. By turning the colour purity rings with tabs "E", the vertical red bar is adjusted nearest to the centre of the screen, while the central horizontal line should be as straight as possible.
9. Supply a white pattern signal and check that the red bar is in the centre of the screen. If not, switch on the cross-hatch pattern again and move the red bar in the right direction, taking care that the picture does not move too much in vertical direction.
10. Supply the white pattern signal and move the deflection unit until the whole picture surface is uniformly red.
11. Switch on the green and the blue guns by reconnecting R3316 and R3303. No colour patches should occur in the white picture now obtained. If necessary a minor correction can be made by slightly turning the colour purity rings "E" and/or slightly moving the deflection unit.
12. Tighten screw "F" tightly.
13. Proceed to the static and dynamic convergence adjustments.

3.2 Static convergence (see Fig. 4)

1. Supply a cross-hatch pattern and allow for a warming-up time of 10 minutes.
2. Switch off the green gun by disconnecting resistor 3316 and turn locking ring "B" anticlockwise.
3. By turning the four-pole rings with tabs "C", the red and blue cross-hatch patterns in the centre of the screen are placed on top of each other.
4. Switch on the green gun by reconnecting 3316 and switch-off the blue gun by disconnecting resistor 3303.
5. By turning the six-pole rings with tabs "D" the red and green cross-hatch patterns in the centre of the screen are placed on top of each other.
6. Switch-on the blue gun again and tighten ring "B" again.

3.3 Dynamic convergence (see Fig. 5 and 6)

Remark:
The dynamic convergence is achieved by vertical and horizontal tilting of the deflection unit. To secure the right position of the deflection unit, three rubber wedges are fitted between the glass of the picture tube and the deflection unit, as shown in Fig. 5d or 6d.

1. First check the colour purity and switch off the green gun by disconnecting resistor.
2. Supply a cross-hatch pattern and switch off the green gun by disconnecting resistor 3316.
3. Eliminate the crossing of the central horizontal blue and red line and the crossing of the central vertical blue and red line, by vertical tilting of the deflection unit. If the position of the deflection unit is correct, then place rubber wedge 1, paper strip not removed, at the top (Fig. 5a) or at the bottom (Fig. 6a). Fig. 5a is applicable if the deflection unit is tilted upwards and Fig. 6a if the unit is tilted downwards.
4. by horizontal tilting of the deflection unit, now both the horizontal blue and red lines in the upper and lower halves of the picture and the vertical blue and red lines on the left and right hand side of the picture are placed on top of the other.
   If the position of the deflection unit is correct, then place wedges 2 and 3 with paper strips removed, as shown in Fig. 5b or 6b. Firmly press the adhesive sides of these wedges against the glass of the picture tube.
5. Now place wedge 4 as shown in Fig. 5c or 6c and press on the adhesive side firmly.
6. Remove wedge 1, to obtain the condition shown in Fig. 5d or 6d.
7. Switch on the green gun by reconnecting 3316.

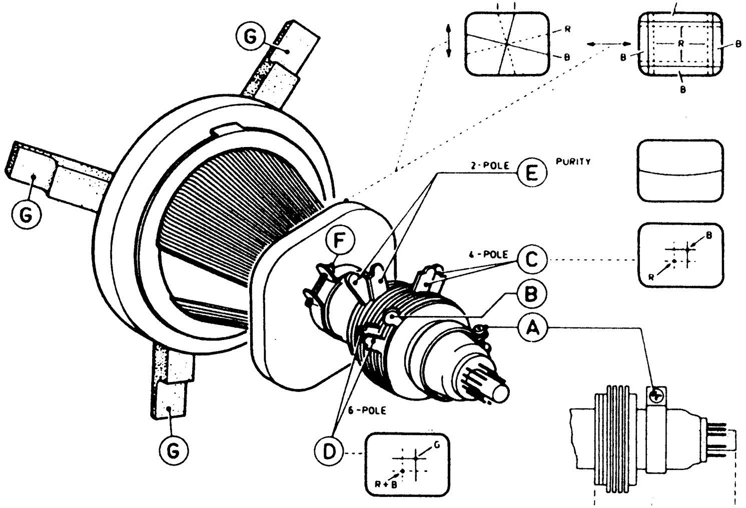


Fig. 4

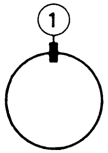


Fig. 5a

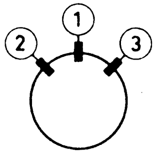


Fig. 5b

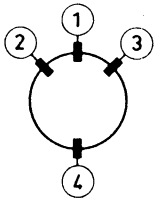


Fig. 5c

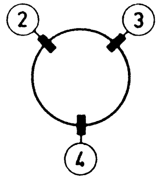


Fig. 5d

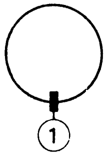


Fig. 6a

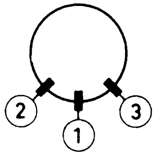


Fig. 6b

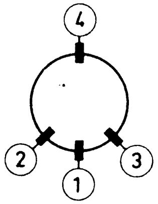


Fig. 6c

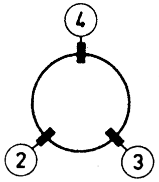


Fig. 6d

38 817 E12

Electrical adjustments

4. Settings on the QSS panel

4.1 38.9 MHz IF demodulation adjustment

Connect a pattern generator (e.g. PM5518) to the tuner with a sound carrier but with no audio modulation on the carrier. Connect an oscilloscope to pin 1 Q4 (SIF output). Adjust coil L5003 to get minimal video ripple.

4.2 AF1 (L+R) sound demodulation adjustment

Connect a pattern generator (e.g. PM5518) to the tuner with sound modulation 1 kHz on both L- and R-channels. Connect an oscilloscope to pin 5 Q4 (AF1 output). Adjust coil L5004 to get maximum audio output.

4.3 AF2 (2R) sound demodulation adjustment

Connect a pattern generator (e.g. PM5518) to the tuner with 1 kHz sound demodulation on R-channel and no sound demodulation on L-channel. Connect an oscilloscope to pin 3 Q4 (AF2 output). Adjust coil L5005 to get maximum audio output.

5. Settings on the 2CS + I/O + amplification panel

5.1 Stereo channel separation adjustment

Connect a pattern generator (e.g. PM5518) to the tuner with sound modulation 3 kHz on the L-channel and 1 kHz on the R-channel. Connect an oscilloscope to pin 12 IC7800 (L-INT or TP46). Adjust potentiometer 3801 to get optimal 3 kHz audio output.

5.2 Subwoofer volume adjustment (optional)

Adjust subwoofer volume in respect with squeeters volume via potentiometer R3182.

6. Settings on NICAM stereo panel

6.1 Nyquist filter

The NYQUIST filter 1018 is factory adjusted and may/can NOT be adjusted by service.

7. Settings on BTSC panel

7.1 Input gain adjustment

Adjust **R3807** for optimal BTSC reception

7.2 Oscillator adjustment

Connect pin 31 to pin 32 (+5V) of IC7801 by a 2k7 resistor. Connect an oscilloscope (or frequency counter) to pin 7 of IC7801 and align **R3828** at 15,734 kHz (pilot frequency).

7.3 Pilot cancelation adjustment

Select an off-air BTSC channel with a strong pilot. Connect an oscilloscope at pin 7 of IC7801 and adjust **R3804** for minimum 15,734 kHz, then **R3806** for minimum 15,734 kHz and then again **R3804** for minimum 15,734 kHz.

7.4 Stereo channel separation at 300 Hz

Connect an BTSC generator (e.g. Leader Model LMS-238P) to the tuner input. Set generator to an internal frequency of 300 Hz at L-signal only with Pilot and SAP "on" and Level Control pushed in.
Connect AC millivoltmeter at pin 23 IC7801 (R-output) and align **R3808** for minimum amplitude at pin 23.

7.5 Stereo channel separation at 3 kHz

Connect an BTSC generator (e.g. Leader Model LMS-238P) to the tuner input. Set generator to an internal frequency of 3 kHz at L-signal only with Pilot and SAP "on" and Level Control pushed in.
Connect AC millivoltmeter at pin 23 IC7801 (R-output) and align **R3810** for minimum amplitude at pin 23.

If no BTSC generator available try to adjust **R3808** and **R3810** for optimal stereo channel separation over the entire audio spectrum by listening.

7.6 SAP level alignment

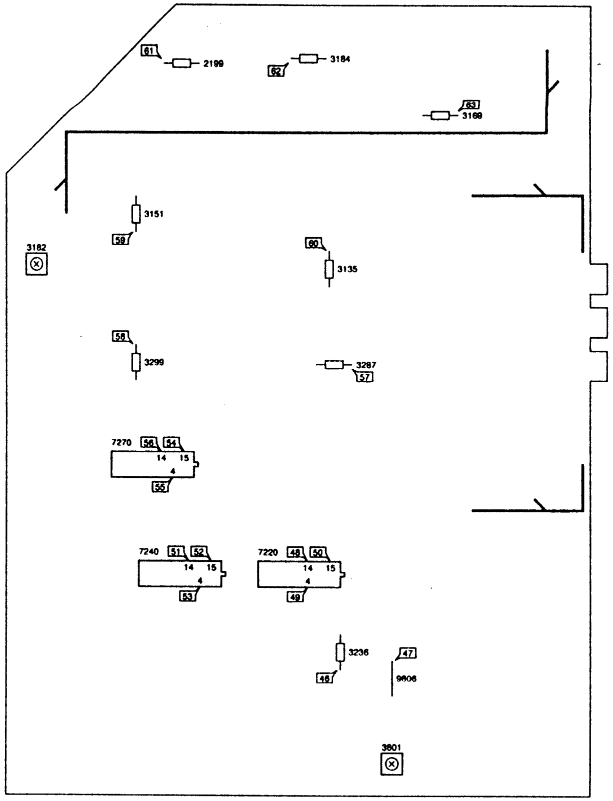
Select a BTSC channel with dual language. Switch with the remote control from language I to language II and adjust **R3809** until both I and II have approx. same sound amplitude.

Tip: IC7801 can be forced by a DC voltage at pin 11:

Pin 11 = 2.5V → SAP (second audio program)/Language II mode
Pin 11 = 4.25V → Stereo mode
Pin 11 = 7.2V → Mono mode

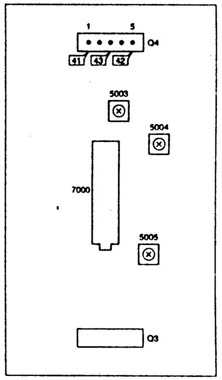
Electrical adjustments

2CS + I/O + amplification panel (copper side)



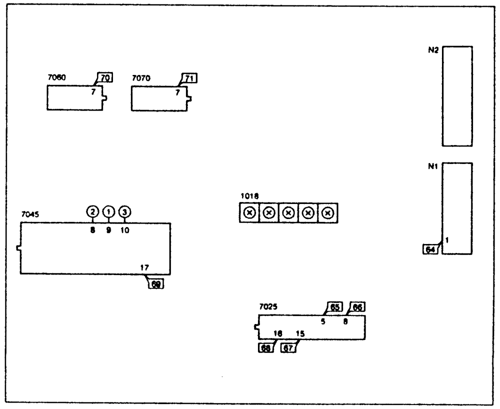
CL 46532010/13
270194

QSS (component side)



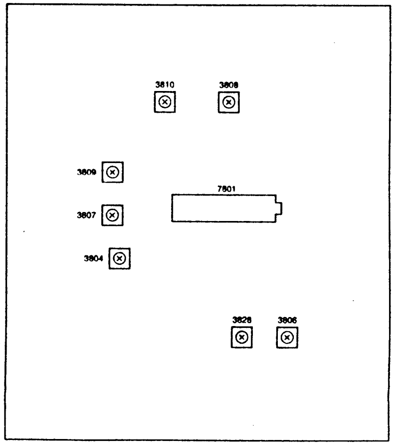
CL 46532010/015
270194

NICAM (copper side)



CL 46532010/14
270194

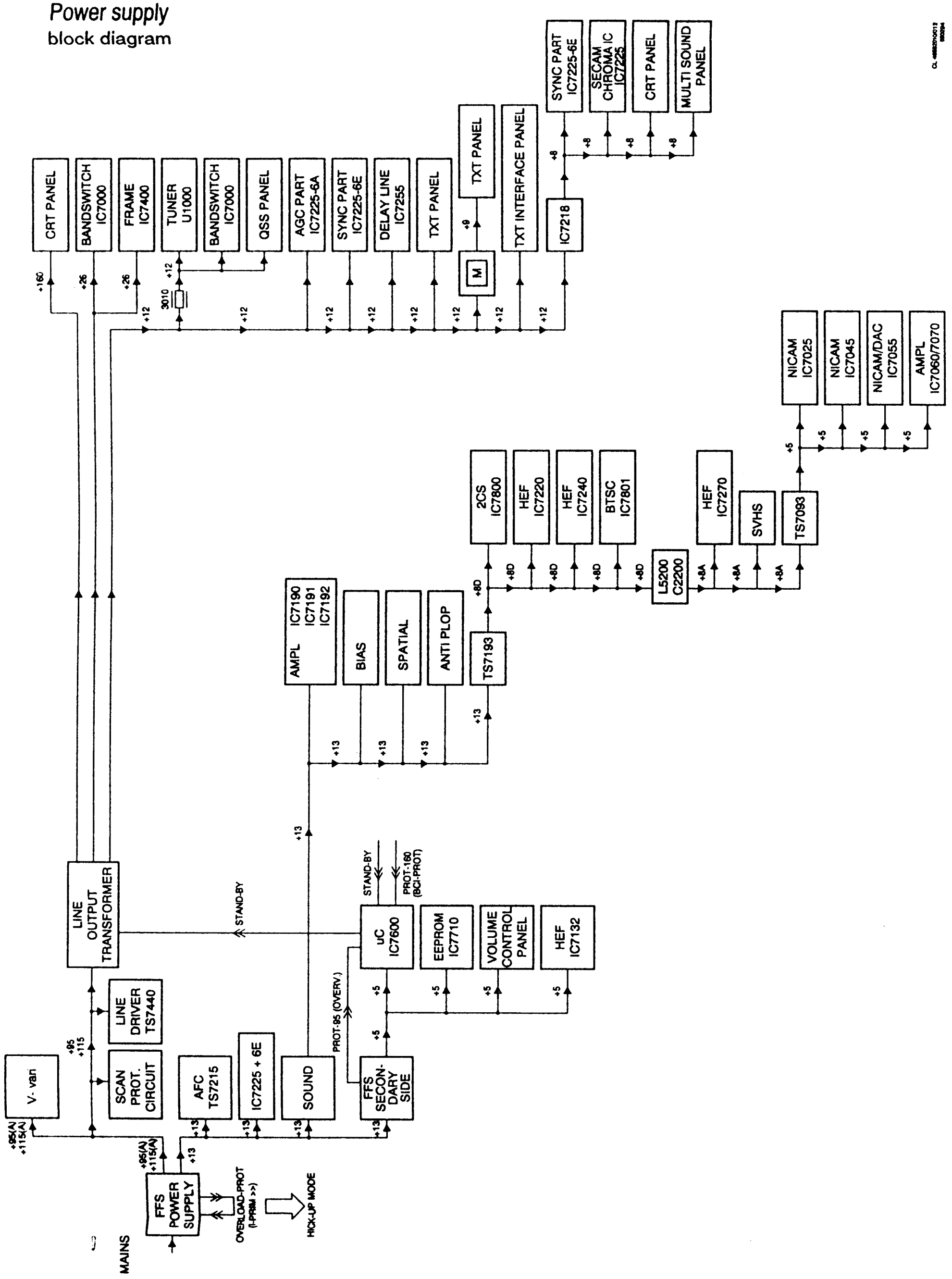
BTSC (component side)



CL 46532010/017
270194

8. Repair tips

Power supply
block diagram


CRT PANEL
BANDSWITCH IC7000
FRAME IC7400
TUNER U1000
BANDSWITCH IC7000
QSS PANEL
AGC PART IC7225-6A
SYNC PART IC7225-6E
DELAY LINE IC7255
TXT PANEL
TXT PANEL
M
TXT INTERFACE PANEL
IC7218
SYNC PART IC7225-6E
SECAM CHROMA IC IC7225
CRT PANEL
MULTI SOUND PANEL
+160
+26
+26
+12
3010
+9
+8
NICAM IC7025
NICAM IC7045
NICAM/DAC IC7055
AMPL IC7060/7070
+5
2CS IC7800
HEF IC7220
HEF IC7240
BTSC IC7801
L5200 C2200
HEF IC7270
SVHS
TS7093
+8D
+8A
AMPL IC7190 IC7191 IC7192
BIAS
SPATIAL
ANTI PLOP
TS7193
+13
LINE OUTPUT TRANSFORMER
STAND-BY
STAND-BY
PROT-160 (BCI-PROT)
uC IC7600
EEPROM IC7710
VOLUME CONTROL PANEL
HEF IC7132
PROT-95 (OVERV.)
LINE DRIVER TS7440
SCAN PROT. CIRCUIT
V- vari
+95
+115
AFC TS7215
IC7225 + 6E
SOUND
FFS SECON-DARY SIDE
+95(A)
+115(A)
FFS POWER SUPPLY
OVERLOAD-PROT (I-PRIM >>)
HICK-UP MODE
MAINS

Repair tips

1. Service position for video and audio faultfinding

For video related faultfinding the main carrier can be disconnected from the TXT panel and the 2CS+I/O+AMPLIFICATION panel as the set will automatically switch to internal CVBS (except for SECAM chroma which signal path is via the 2CS+I/O+AMPLIFICATION panel). Of course for CVBS I/O faultfinding the 2CS+I/O+AMPLIFICATION panel should be connected to the main carrier.

For audio related faultfinding first measure pin 1 IC7225-6F (AUDIO_OUT LF audio signal inclusive BTSC and NICAM info) and TP 42 and 43 at resp pin 5 and 3 of connector Q4 (AF1 and AF2):

- If all OK, the fault is on the 2CS+I/O+ AMPLIFICATION or NICAM or BTSC panel
- If not all OK, the fault is on the main carrier (QSS or IC7225-6F

2. Error messages

Via I^{2}C the µC can detect malfunction of all I^{2}C controlled IC's. Maximal 3 error codes can be displayed indicating maximal 3 different errors detected at switch on (see Table 8.1). These error codes will be displayed via OSD, only in normal operation mode after every switch on of the set. Error codes detected in the past can be displayed in the Service Mode (see section 3.1.3).

Error code	Error description	Possible defective component
1	Not used (only for PLL tuner sets)	Not used
2	EEPROM Checksum Error	Set not correct configured
3	Simulcast tuning	TDA8442
4	2CS Stereo decoder	IC 7800
5	Internal RAM error	IC 7600
6	EEPROM	IC 7710
7	NICAM stereo decoder	IC 7045
8	Not used	--

Table 8.1

3. Service Default Mode

3.1 Entry of the Service Default Mode:

Shortcircuit the 2 Service Default Mode pins on the main carrier (M28 and M29 near µC) for a short moment while switching on the set. An "S" on the screen will indicate the activated Service Default Mode

3.2 Functions of the Service Default Mode:

In the Service Default Mode the set is in a pre-defined condition: All controls at 50% except volume 25%, VST sets tuned at program 1 and PLL sets tuned at 475.25 MHz (with auto system search).
All DC voltages & oscillograms indicated in the Service Manual are measured in the Service Default Mode.

3.3 Exit of the Service Default Mode:

Standby and switching off the set (of course the Service Default Mode pin shortcircuit has to be removed by then).

4. Service Mode

4.1 Entry of the Service Mode:

Shortcircuit 2 Service Mode pins on the main carrier (M31 and M32 near µC) for a short moment while switching on the set (EEPROM-protection will automatically be deactivated at entering the service mode, and activated again at exiting the service mode via standby (content of address 255 will be adapted automatically, so this does not have to be checked)).

4.2 Functions of the Service Mode:

Functions of the Service Mode are; display the software number and version, set all software controlled options, display error codes detected in the past and erase the error code detected in the past.

4.2.1 *Display the software number and version.*
In the Service Mode the following menu will appear:

ANUBIS-S AHV V1.3
ADR XXX DATA XXX"

SA indicates software number A, H indicates Hotel Mode option is present in this software and V1.3 indicates 1st masking with 3rd version.

4.2.2 *Set all software controlled options*
The addresses where the option settings are stored are the addresses 245 up to and including 253. The default data (stored by the factory) differs from stroke version to stroke version. This default data is given at a sticker inside the set.

For manipulation of the data at the option addresses 245 up to and including 253 table 8.3 can be used.

Changing the options settings according to the hardware environment, can be done in the Service Mode via the keys:

1. **"CONTROL -/+"**	By pressing the "control -/+" keys the value behind ADR or DATA will be highlighted sequently
2a. **"PROG -/+"**	By pressing "prog -/+" keys the highlighted value can be increased or decreased
2b. **"0-9"**	By pressing "0-9" keys the highlighted value can directly be keyed in
3. **"STORE"**	After every ADR and/or DATA change a "store" command has to be given to store these changes!!!

For the option addresses 245 and 246 first determine what is valid for your particular set (e.g. the first option for a software number A set at address 245 is to choose for is "2CS stereo" or "No 2CS stereo" possible) by choosing between the option A or B (option A is always the opposite of option B). After determination of all options (so 8 option choices per address) the 8 corresponding values can be added for that particular address. This sum is the data to be keyed in, so e.g. for address 245 a set with software number A data can be calculated as follows:

2CS stereo possible	→	0
AV stereo playback is selectable	→	0
AV is selectable	→	32
Spatial sound possible	→	16
Hue control possible	→	8
No simulcast	→	0
Remote STORE key not allowed	→	2
"Normal" bandswitch signals used	→	1

The data at address 254 by then is:		59

Repair tips

For option addresses 247 up to and including 253 the values in table 8.3 are related to the used tuner and to NICAM and Multisound panel present or not present. The values given in this table can directly be keyed in as the data for the corresponding option addresses.

The changed settings are only activated when the set is switched off and on again and if the checksum at address 254 is correctly updated; if the checksum is not OK the set will use default settings!!

The checksum can be obtained by adding all data at the addresses 245 up to and including 253 and then subtract 256 until the data has a value under 256: for example, if EEPROM contains the following data, the checksum will be:

Address	*Data*
245	187
246	117
247	41
248	82
249	74
250	33
251	132
252	8
253	226

	900

900 - 256 - 256 - 256 = 132

Checksum address	*Data*
254	132

The other addresses of the EEPROM (so all addresses except 240 to 254 and 220) contain program information and preference-, factory- and current settings.

4.2.3 *Display error codes detected in the past*

The data at address 220 indicates all error codes detected in the past. The data at address 220 is a byte whereby the 8 bits refer to 8 possible error codes detected in the past; see table 8.2.

Data at address 220	Error codes: 8765 4321	Error codes detected in the past
000	0000 0000	No error codes detected
001	0000 0001	1
002	0000 0010	2
003	0000 0011	1 & 2
004	0000 0100	3
005	0000 0101	1 & 3
006	0000 0110	2 & 3
007	0000 0111	1 & 2 & 3
etc.		
etc.		
255	1111 1111	1 & 2 & 3 & 4 & 5 & 6 & 7 & 8

Table 8.2

4.2.4 *Erase the error code detected in the past*

If data at address is overwritten with 000 the error code history has been erased.

4.3 Exit of the Service Mode:

For all software numbers the Service Mode is exited via the standby command.

5. Replacing an EEPROM

Besides of the option settings also information about programs, PP (personal preference), IP (initial or factory preference, the "NORMAL" in the PP-toggle function) and CU (current settings at the moment the set was switched off) are stored in the EEPROM. After replacing an EEPROM the PP will be stored after pressing the PP store button and the CU will be stored after switching off the set. But as the IP can not be filled via a "Normal Operation", this has to be done (although it is not necessary for basic operation of the set) in the Service Mode by storing the following data at the respective addresses:

Address	*VST-sets*	*PLL-sets*
232	63	63
233	20	30
234	33	39
235	32	32
236	176	170
237	160	160
238	20	20

6. Hotel mode

Hotel mode can only be activated if:
1. Software for hotel mode is available (so an "H" version)
2. When hotel mode option (address 246) is enabled

Two hotel modes are possible:

Hotel mode 1:

- * Activating by simultaneously pressing the "STORE" and "PROGRAM-" on the local keyboard while program 38 is selected. Both keys must be hold down for at least 3 seconds.
- * Features:
  - Install menu (also automatic search) not possible.
  - Storing PP not possible.
  - Using the "PROGRAM +/-" keys from standby will switch the TV on to program 1 instead of to the last selected program.
  - Maximum volume value is limited to the value present at the moment the hotel mode was activated.
- * Deactivating by simultaneously pressing the "PROGRAM+" and "VOLUME-" keys on the local keyboard for at least 3 seconds while program 38 is selected.

Hotel mode 2:

- * Entering by simultaneously pressing the "STORE" and "PROGRAM-" on the local keyboard while program 37 is selected. Both keys must be hold down for at least 3 seconds.
- * Features:
  Same features as Hotel mode 1 except from program numbers 30 up to 49 the screen remains blanked to be used as a radio (the transmitter should produce a valid horizontal IDENT).
  While these blanked program numbers are tuned the small program number will be displayed permanently.
- * Deactivating by simultaneously pressing the "PROGRAM+" and "VOLUME-" keys on the local keyboard for at least 3 seconds while program 37 is selected.

Repair tips

Option setting table for software number A

Address	Option A	Value	Option B	Value
245	2 CS stereo possible	0	2 CS stereo not possible	128
	AV stereo playback enabled	0	AV uses mono only	64
	No AV selectable	0	AV selectable	32
	No spatial sound possible	0	Spatial sound selectable	16
	No hue control possible	0	Hue control possible	8
	No simulcast	0	Simulcast available	4
	Remote STORE key allowed	0	No remote STORE key	2
	VHF1 and VHF3 swapped for UV973 tuner	0	"Normal" bandswitch signals	1
246	No hotel mode possible	0	Hotel mode can be enabled	128
	No UHF tuning possible	0	UHF band allowed	64
	No VHF3 tuning possible	0	VHF3 band allowed	32
	No VHF1 tuning possible	0	VHF1 band allowed	16
	Not used			0
	No sound standard selection	0	Auto, M, B/G, I, D/K sound selection possible	4
	Not used			0
	No colour system selection	0	Auto, SECAM, PAL(/NTSC)	1
247	No NICAM panel possible, multisound panel not present			40
	No NICAM panel possible, multisound panel present			41
	NICAM available, multisound panel not present			168
	NICAM available, multisound panel present			169
248	UV 913 / UV 973 (VST)			191
	UV 915 (VST)			42
	UV 953 (VST)			162
249	UV 913 / UV 953 / UV 973 (VST)			93
	UV 915 (VST)			73
250	UV 913 / UV 953 / UV 973 (VST)			25
	UV 915 (VST)			0
251	UV 913 / UV 953 / UV 973 (VST)			134
	UV 915 (VST)			129
252	All VST tuners			0
253	UV 913 / UV 953 / UV 973 (VST)			224
	UV 953 (VST)			225

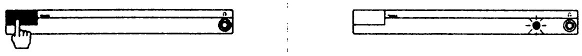
Table 8.3

9. Directions for use

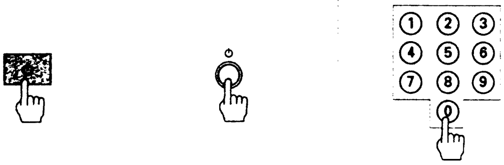
Switching the TV ON/OFF

- **Press the POWER button on the front bottom left hand corner of the TV to switch ON/OFF and wait a few seconds for the sound or signal to come on.**

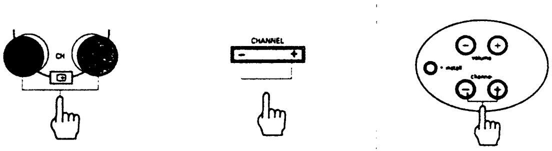
  If there is a red light on the bottom of the screen, it indicates that the TV has been put to 'Stand-by' mode.



- Press the STAND–BY button (⏻) or any digit buttons on the remote control handset OR



- Press the CHANNEL + or — button on the remote control handset or the TV control



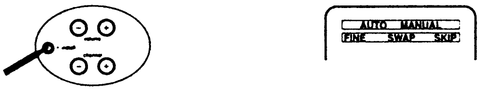
Searching and Storing TV Channels

For searching and storing TV channels you need to work with the control buttons at the top of the TV and your remote control handset. (Up to 70 TV stations can be stored on channel numbers using the following methods.) **You can store the TV stations either automatically or manually.**

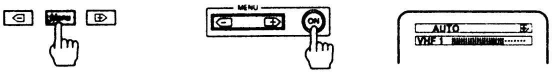
(Note : For Australia (version /75) the TV is pre–tuned to channel number 0, 2, 7, 9, 10 and 28.)

A. To Store the TV Stations Automatically

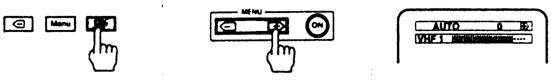
1. Press the INSTALL button at the top of the TV with a pointed object to start the INSTALLATION menu; the **AUTO** menu is selected first.



2. Press the MENU or MENU ON button on the remote control handset to select the **AUTO** menu.



3. Press the MENU + button on the remote control handset to start the **AUTO** mode. The TV will start searching and store all available stations in an ascending sequence.

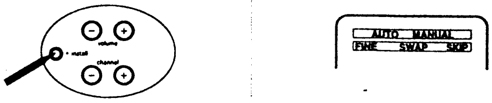


NOTE : If at any time of the AUTOMATIC TUNING procedures and you wish to exit, press the ⊡ button on your remote control handset.

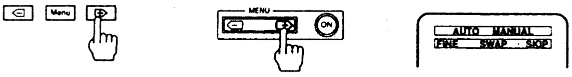
When all the available stations are stored, it will automatically exit from the INSTALLATION Menu and channel 1 will be displayed. In case the picture and sound is not optimum, proceed to the section on Fine Tuning.

B. To Store the TV Stations Manually

1. Press the INSTALL button at the top of the TV set with a pointed object to start the **INSTALLATION** Menu.

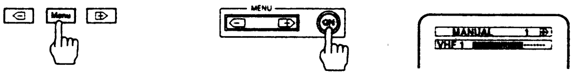


2. Press the MENU + button on the remote control handset to highlight the **MANUAL** menu.

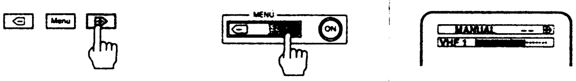


NOTE : If at any time of the MANUAL TUNING procedures and you wish to exit, press the ⊡ button on your remote control handset.

3. Press the MENU or MENU ON button on the remote control handset to select the **MANUAL** Menu.



4. Press the MENU + button on the remote control handset to start the **MANUAL** mode.The TV will start searching and at every available station, it will prompt you to enter your preference channel number.



If the signal is weak and you do not wish to store the TV station, press the MENU + button to continue searching.

If the signal is good and you wish to store the TV station, select the desired channel number by pressing the CHANNEL + or — button on your remote control handset or TV control. Store your selection by pressing the INSTALL button.

5. Repeat Step **4** to store other available TV stations.

TO EXIT :
- Press the INSTALL button again.

NOTE : If in case the picture and sound stored is not optimum, proceed to the section on Fine Tuning.

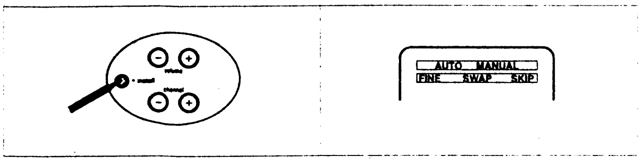
Directions for use

C. Fine Tuning

In case the picture and sound is not optimum or in area of poor reception and constant interference, a slight adjustment of the tuning may improve the picture and sound quality.

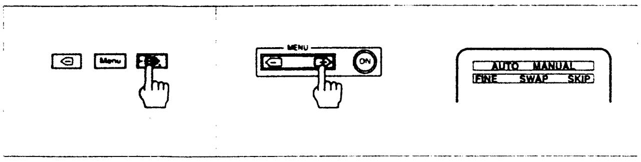
1. Select the channel which you want to fine tune with the CHANNEL + or — button on the remote control handset or TV control.

2. Press the INSTALL button at top of the TV to start the INSTALLATION Menu.

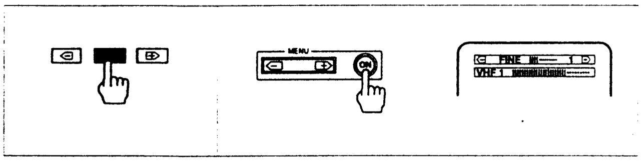

volume
install
channel
AUTO MANUAL
FINE SWAP SKIP

NOTE : If at any time of the FINE TUNING procedures and you wish to exit, press the ⊡ button on your remote control handset.

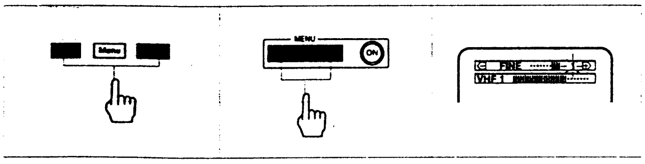
3. Press the MENU + button on the remote control handset to highlight the FINE tuning menu.


Menu
MENU
ON
AUTO MANUAL
FINE SWAP SKIP

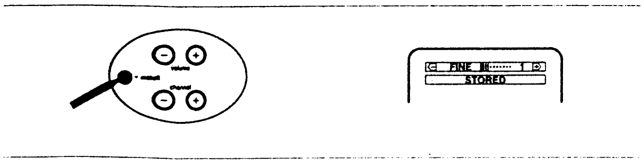
4. Press the MENU or MENU ON button on the remote control handset to start the FINE tuning Menu.


MENU
ON
FINE 1
VHF 1

5. Press and hold the MENU + or — button on the remote control handset until the desired picture or sound is obtained. A moving indicator and blinking channel number will appear on the screen indicating that the set is being fine tuned.


Menu
MENU
ON
FINE 1
VHF 1

6. Press the INSTALL button on the TV control to store the new settings. Repeat the above procedures for other channel numbers which you wish to do a fine tuning.


volume
install
channel
FINE 1
STORED

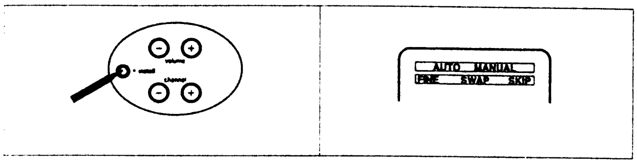
TO EXIT :
- Press the INSTALL button again.

D. Swapping channel numbers

If you had used the automatic frequency searching, the TV stations stored under the channel numbers may not be to your preference. You can made use of the SWAP feature to re-arrange the TV stations according to the channel numbers of your preference.

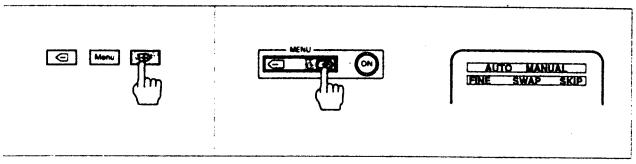
1. Select the channel number which you want to do a swap.

2. Press the INSTALL button at the top of the TV with a pointed object to start the INSTALLATION Menu.

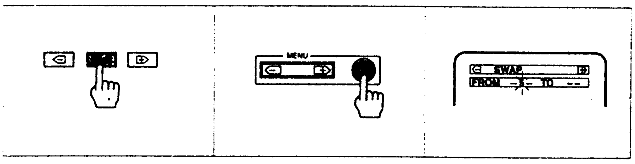

volume
install
channel
AUTO MANUAL
FINE SWAP SKIP

NOTE : If at any time of the SWAPPING procedures and you wish to exit, just press the ⊡ button on your remote control handset.

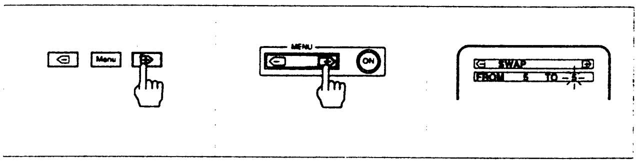
3. Press the MENU + button on the remote control handset to highlight the SWAP menu.


Menu
MENU
ON
AUTO MANUAL
FINE SWAP SKIP

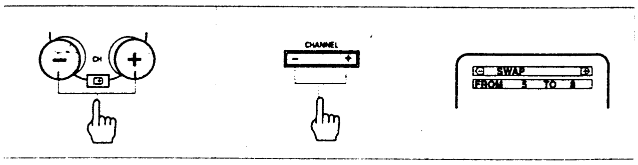
4. Press the MENU or MENU ON button on the remote control handset to start the SWAP Menu. The current channel will be indicated at the FROM column in green and flashing. e.g. Ch 5


MENU
SWAP
FROM 5 TO --

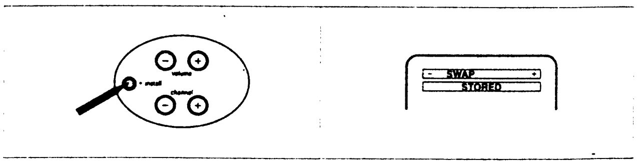
5. Press the MENU + button on the remote control handset to select the TO column. (Pressing the MENU + or — button will enable you to toggle between the TO and the FROM function).


Menu
MENU
ON
SWAP
FROM 5 TO --

6. Select the channel number you wish to do the swapping by pressing the CHANNEL + or — button on the remote control hanndset or TV control e.g. Ch 8.


CH
CHANNEL
SWAP
FROM 5 TO 8

7. Press the INSTALL button to activate the SWAP function and to store the swapped channels.


volume
install
channel
SWAP
STORED

TO EXIT :
- Press the INSTALL button again.

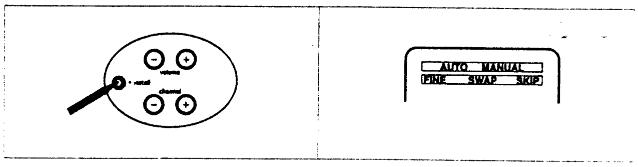
NOTE :
When the TV is at the following modes, the SWAP feature does not activate :-
1. AV
2. Teletext (if your set is equipped)
3. The FROM column is indicated with -- symbol.

Directions for use

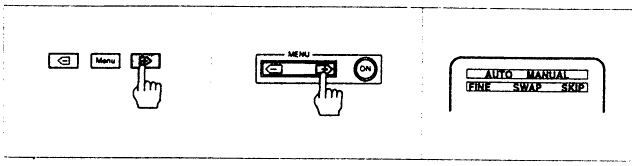
E. Skipping channel numbers

This feature enable you to skip those channel numbers which have bad or no TV station signal via the CHANNEL + or — button on the remote control handset or TV control. But if you do a direct channel number keying on a remote control handset, you still can select the particular channel number even though it is been skipped.

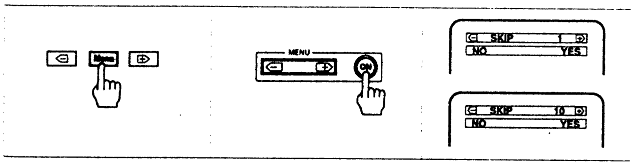
1. Press the INSTALL button at the top of the TV, to start the INSTALLATION Menu.



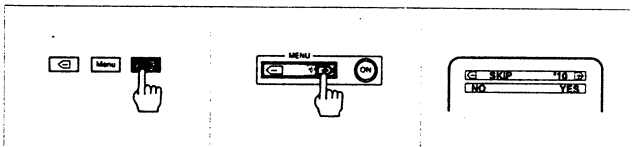
2. Press the MENU + button on the remote control handset to highlight the SKIP menu.



3. Press the MENU or MENU ON button on the remote control handset to start the SKIP Menu and select the required channels to be skipped with the CHANNEL + or — button on the remote control handset or TV control e.g. Ch 10.



4. Press the MENU + button on the remote control handset to select YES and the channel will be skipped from the memory. When a channel is skipped, the On Screen Display in the SKIP Menu will display e.g. *10 in red.



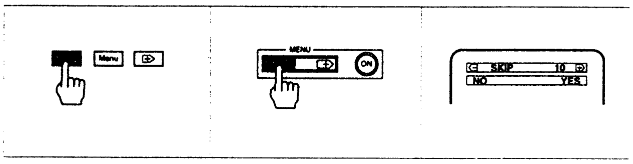
TO EXIT :
- Press the INSTALL button at the top of theTV .

NOTE : If you need to add back the channel that you have skipped, please refer to the section on 'Adding back the skipped channel numbers' below.

F. Adding back the skipped channel numbers

1. Repeat steps E1 to E4 on the previous page.

2. Press the MENU — button to select NO and the channel will be added to the memory. When a channel is added, the On Screen Display in the SKIP Menu will displayed. e.g. 10 in green.



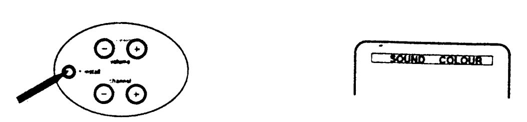
TO EXIT :
- Press the INSTALL button at the top of theTV .

TV System Sound Selection (for multi-system sets only)

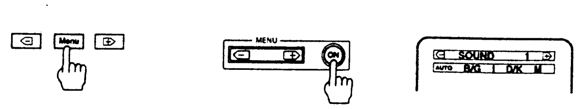
If during Automatic or Manual Tuning, the selected sound is distorted due to different TV transmission system, proceed with the following operations to restore the correct sound for the respective transmission.

1. Select the channel number you want to rectify the sound system.

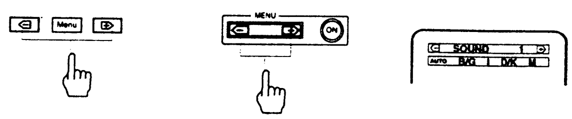
2. Press and hold the INSTALL button at the top of the TV continuously for about 2 seconds, to activate the SOUND and COLOUR Menu; the SOUND menu is selected first.



3. Press the MENU or MENU ON button on the remote control handset to start the SOUND menu.



4. Press the MENU + or — button on the remote control handset to select one of the following sound systems according to the respective transmission mode : AUTO ; B/G ; I ; D/K or M



If you select the AUTO mode, the TV will automatically select the respective sound system according to the transmission system.

NOTE : In area of poor reception, select the respective transmission mode B/G, I, D/K or M instead of AUTO mode.

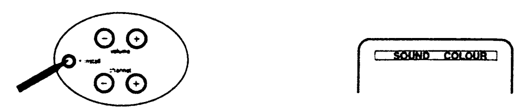
5. Press the INSTALL button on the TV control to store the selections and to exit from the SOUND and COLOUR Menu.

TV System Colour Selection (for multi-system sets only)

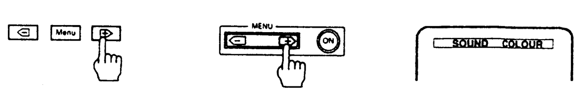
If during Automatic or Manual Tuning, the selected colour is distorted due to different TV transmission system, proceed with the following operations to restore the correct colour for the respective transmission.

1. Select the channel number you want to rectify the colour system.

2. Press and hold the INSTALL button on top of the TV continuously for about 2 seconds, to start the SOUND and COLOUR Menu.

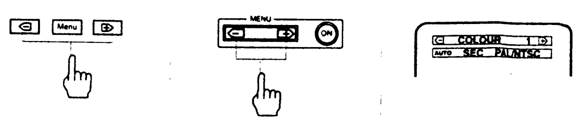


3. Press the MENU + button to select the COLOUR menu.



4. Press the MENU or MENU ON button on the remote control handset to start the COLOUR menu.

5. Press the MENU + or — button to select one of the following colour systems according to the respective transmission mode : AUTO ; SECam or PAL/NTSC



If you select the AUTO mode, the TV will automatically select the respective colour system according to the transmission system.

NOTE : In area of poor reception, select the respective transmission mode SECam or PAL/NTSC instead of AUTO mode.

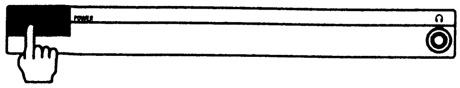
6. Press the INSTALL button on the TV control to store the selections and to exit from the SOUND and COLOUR Menu.

Directions for use

You can now operate your TV either directly using the TV buttons or the remote control handset.

1. Switching the TV ON/OFF

- Press the POWER button on the bottom left hand corner of your TV to switch the TV ON and OFF.

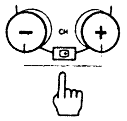


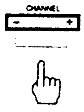
NOTE : The last viewed TV station will be automatically selected when the set is first switched on.

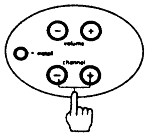
2. Selecting the TV Channels

To select a TV station stored on a higher channel number
- Press the CHANNEL + on the remote control handset or the TV control.

To select a TV station stored on a lower channel number
- Press the CHANNEL — on the remote control handset or the TV control.







Channel numbers can also be selected using the digit buttons 0 to 9 on the remote control handset.

A. Single Digit Channel Number

- Press and hold any of the respective digit buttons which correspond to the stored TV station. (see Fig. 1)

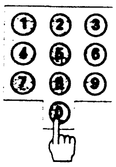


Fig. 1

B. Two Digits Channel Number

(e.g. channel 28, see Fig. 2)
❶ Press the digit 2 button then
❷ Press the digit 8 button.

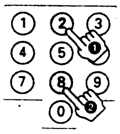


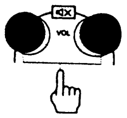
Fig. 2

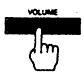
You must complete the above operation within a time frame of 2 seconds, if not, it will react as a Single Digit operation.

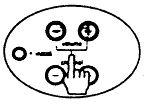
3. Adjusting the Volume

To increase the volume
- Press the VOLUME + on the remote control handset or the TV control.

To decrease the volume
- Press the VOLUME — on the remote control handset or the TV control.





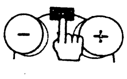


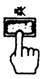
NOTE : If you want to store the volume as your personal preference, press the INSTALL button on the TV set while the volume indicator bar is still on the screen.

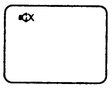
The following functions, S/No 4 to 12 are operations with the remote control handset.

4. Muting the Sound

- Press the mute button to switch off the sound.







The sound is temporarily muted and the mute symbol is display on the screen.

- Press the mute button or the VOLUME + or — button to restore the sound.

5. Switching to 'Stand–by' mode

The TV can be put into 'Stand–by' mode in the following two ways.

A. Directly

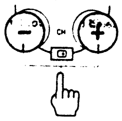
- Press the ⏻ button. The RED light below the TV screen is lighted up and the TV is put into 'Stand–by' mode.

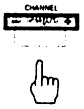
B. Automatically

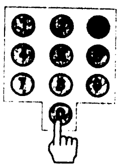
Approximately 10 minutes after a TV station stops transmission or at no signal reception, then the TV switches itself automatically to 'Stand–by' mode.

6. Switching the TV ON from 'Stand–by' mode

- Press the CHANNEL + or — button or any digit buttons.

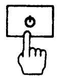






OR

- Press the ⏻ button continuously for about 2 seconds.

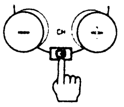


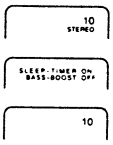
The RED light below the TV screen will disappear.

7. Displaying OSD

The 'On–Screen–Display' (OSD) allows you to see the channel number on which a TV station is stored and also the sleep-timer and bass-boost selections.

- Press the ⊡ button ONCE to display the channel number, TWICE to display the sleep-timer and bass-boost and ONCE MORE to switch off the displayed information.



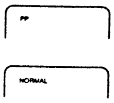


8. Personal Preference (PP)

If adjustments had been made to the picture and sound settings, it is possible to recall the stored settings either from your own or factory stored preferences.

Recalling Personal Preference (PP) and Factory Stored Personal Preference (NORMAL)

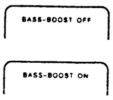
- Press the **PP** button ONCE to reset the picture and sound settings to the one you have stored previously. (Refer to section on Menu Operation for storing of personal preference) It is indicated by the word **PP**.
- Press the **PP** button ONCE MORE will enable you to reset the picture and sound settings to the one that had been stored by the factory previously (you cannot adjust this settings) and is indicated by the word **NORMAL**.



9. Dynamic Bass–Boost (DBB)

This feature enable you to enhance the bass especially for musical programmes.

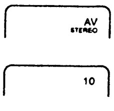
- Press the DBB button to switch on or off the amplification.



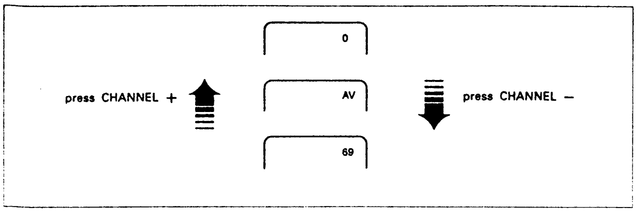
10. AV Source Selection

If your TV is connected to other peripherals equipment via the AV input, you can watch the playback programmes in the AV channel.

- Press the AV button to switch between the AV mode and the TV mode.



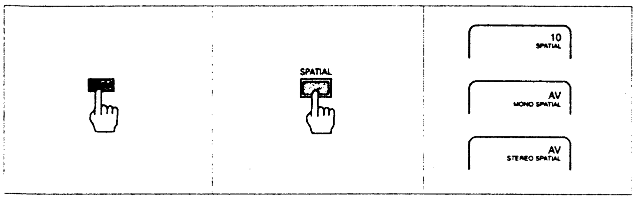
AV can also be selected via the CHANNEL + or − button by scrolling through the channel numbers (provided AV channel is not skipped).


press CHANNEL +
0
AV
69
press CHANNEL −

11. Spatial Sound

This feature enable you to hear a Surround effect.

- Press the SPATIAL button to switch on or off the special acoustic sound effect.


SPATIAL
10 SPATIAL
AV MONO SPATIAL
AV STEREO SPATIAL

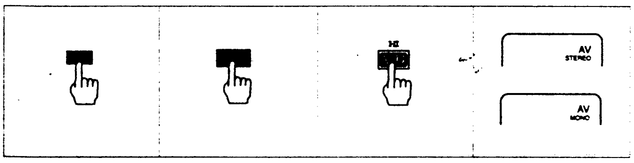
You can select either **STEREO SPATIAL** or **MONO SPATIAL** depending on which sound mode you are playing back.

12. Stereo Playback

This feature is only applicable if you are playing back STEREO programme via the AV sockets from a stereo VCR or laser disc player.

- Press the STEREO or I-II button to switch between **STEREO** or **MONO** sound.

If you are playing back mono programmes (i.e. you only connect the Video socket and the Audio L socket), you must select to the mono sound mode, if not, you will only hear the sound coming out from one of the speakers.

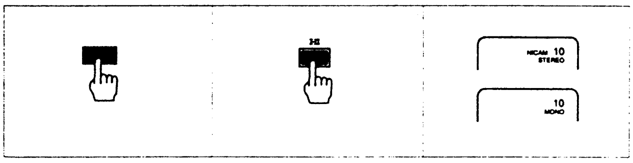

I-II
AV STEREO
AV MONO

For models 21GX1870, 21GX1970, 25GX1880 and 25GX1980 only

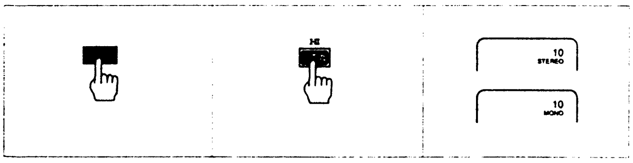
This feature is only applicable if the TV broadcast is transmitted in NICAM Stereo and 2CS Stereo sound. If not you will receive either normal stereo or mono sound. With NICAM (Near Instantaneous Companded Audio Multiplex) sound you can experience a sound quality that is comparable to compact disc quality.

- Press the I-II button on the remote control handset to select between NICAM Stereo / 2CS Stereo and FM Sound (appear as MONO in yellow on the TV On-Screen-Display).

For NICAM Stereo

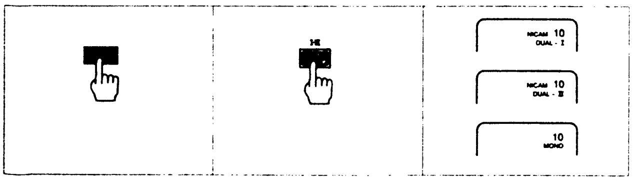

I-II
NICAM 10 STEREO
10 MONO

For 2CS Stereo

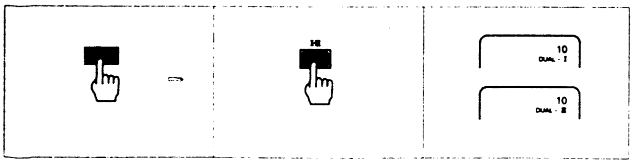

I-II
10 STEREO
10 MONO

When a programme is broadcasted in two languages,
1. For NICAM Stereo, press the I-II button to select either DUAL- I or DUAL- II or FM sound.
2. For 2CS Stereo, press the I-II button to select either DUAL- I or DUAL- II.

For NICAM Stereo

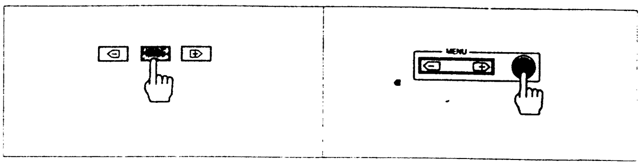

I-II
NICAM 10 DUAL - I
NICAM 10 DUAL - II
10 MONO

For 2CS Stereo


I-II
10 DUAL - I
10 DUAL - II

The picture and sound settings are pre-set by the factory for ideal viewing, but you can store your own personal preference for CONTRAST, BRIGHTNESS, COLOUR, HUE, SHARPNESS, BALANCE and BASS-BOOST using the 'On Screen Menu' (see Fig. 1).

- Press the MENU or MENU ON button on the remote control handset to cycle through the menu.



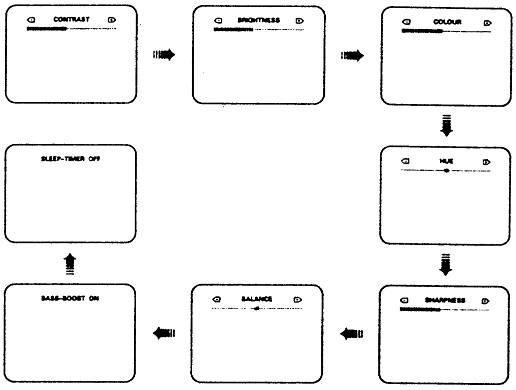
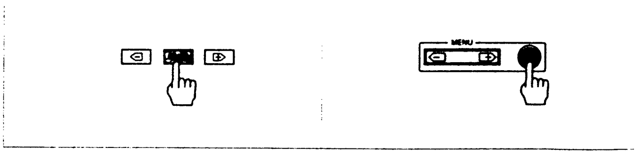

CONTRAST
BRIGHTNESS
COLOUR
HUE
SHARPNESS
BALANCE
BASS-BOOST ON
SLEEP-TIMER OFF

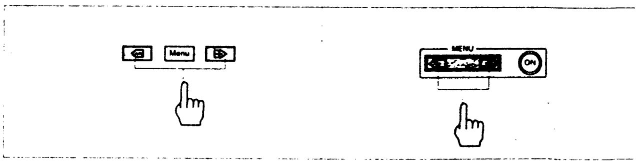
Fig. 1 : On Screen Menu

To store your personal preference

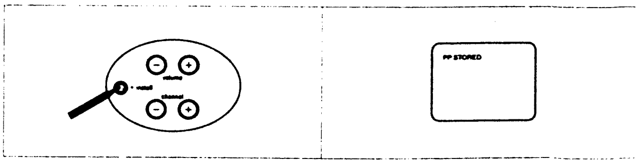
❶



❷


Menu
MENU
ON

❸


volume
install
channel
PP STORED

NOTE : You must perform the settings of the following selections within a time frame of about 4 seconds. Otherwise the On Screen Display will go off and you have to start the whole cycle again.

CONTRAST

❶ Press the MENU or MENU ON button to select **CONTRAST**.
❷ Press the MENU + or − button to increase or decrease the contrast setting.
❸ If you want to store this setting as your personal preference, press the INSTALL button on the TV control.

BRIGHTNESS

❶ Press the MENU or MENU ON button to select **BRIGHTNESS**.
❷ Press the MENU + or − button to increase or decrease the brightness setting.
❸ If you want to store this setting as your personal preference, press the INSTALL button on the TV control.

COLOUR

❶ Press the MENU or MENU ON button to select **COLOUR**.
❷ Press the MENU + or − button to increase or decrease the colour setting.
❸ If you want to store this setting as your personal preference, press the INSTALL button on the TV control.

Directions for use

HUE (For NTSC System or Playback only)

❶ Press the MENU or MENU ON button to select **HUE**.
❷ Press the MENU + or – button to increase or decrease the colour tone setting.
❸ If you want to store this setting as your personal preference, press the INSTALL button on the TV control.

SHARPNESS

❶ Press the MENU or MENU ON button to select **SHARPNESS**.
❷ Press the MENU – or + button to decrease or increase the sharpness setting.
❸ If you want to store this setting as your personal preference, press the INSTALL button on the TV control.

BALANCE (For off-air stereo and AV stereo only)

❶ Press the MENU or MENU ON button to select **BALANCE**.
❷ Press the MENU + or – button to select right or left speaker output.
❸ If you want to store this setting as your personal preference, press the INSTALL button on the TV control.

BASS–BOOST

❶ Press the MENU or MENU ON button to select **BASS–BOOST**.
❷ Press the MENU + or – button to switch on or off the bass–boost.
❸ If you want to store this setting as your personal preference, press the INSTALL button on the TV control.

SLEEP–TIMER

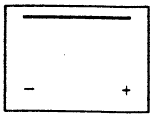
❶ Press the MENU or MENU ON button to select **SLEEP–TIMER**.
❷ Press the MENU + or – button to increase or decrease the sleeptimer setting.

With this feature, you can select a time period after which the TV set will switch to Stand–by mode automatically. The timer can be set in steps of 15 minutes from OFF up to a maximum of 120 minutes.

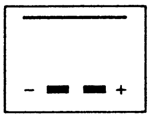
NOTE : At the final minute of the selected time period, an indication bar will be shown on the screen. During the final 30 seconds, the indication bar will begin to count down on the screen informing you that the TV set is going to switch to the Stand–by mode. At the end of the countdown, the TV will switch over to the Stand–by mode.

You can switch off the SLEEP–TIMER with one of the following steps:–
● Select the SLEEP–TIMER menu and select the timer to OFF;
● Switch the TV set to Stand–by mode or
● Switch off the TV set.

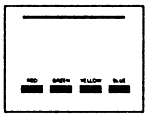
Most TV channel broadcast contains teletext information. Each channel that broadcasts teletext transmits a page (index page) with information on how to use its teletext system – usually on page 100. TV programmes are sometimes subtitled for the benefit of the hard of hearing.
Depending on the TV broadcast, teletext is transmitted in different systems : WST, TOP or FLOF. The system transmitted is indicated in the option line at the bottom of the screen.



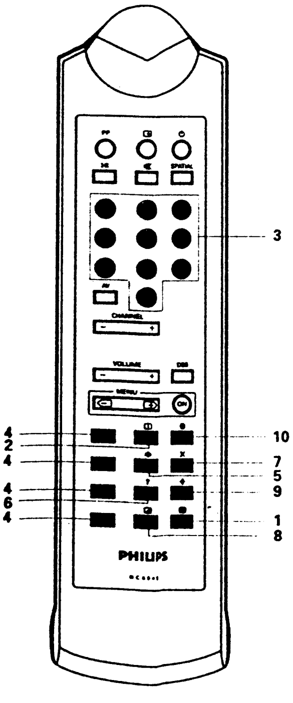
WST



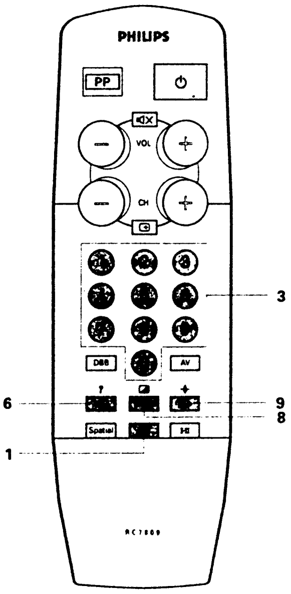
TOP



FLOF



For models 21GX1970, 21GX1971, 25GX1980 and 25GX1981



For models 21GX1870 and 25GX1880

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1. Switching Teletext On and OFF — ▣

Select a TV channel on which teletext is being transmitted. (Check with a TV programme guide.)
- Press the ▣ button to switch on or off the Teletext display. Usually the list of contents (index) is displayed on the screen.

2. Index — ◫ (For RC 6940 only)

- Press the ◫ button to select the index page.

3. Selecting a Teletext Page — Digit 0 – 9

- Press the digit button for the required Teletext page number (3 digits).
  The selected page number is displayed at the top left corner of the screen. The Teletext page counter searches until the selected page is located. Then the required page is displayed on the screen. If the counter keeps searching, it means that the page is not available for selection.
  If you had made a mistake in keying the page number, you have to complete the three digit number before re-keying the correct page number.

NOTE : If an inappropriate digit button is pressed a '?' symbol will be displayed on the top left corner of the screen. To return to normal Teletext operation, just press the approriate digit buttons.

4. To 'Fast' Select a Teletext (For RC 6940 only)

If the teletext is transmitting with FLOF (or Fast Text) format, you can make use of the corresponding colour buttons (red, green, yellow and blue) to select the respective Teletext page.
If the Teletext is transmitting with the WST format, there is a four page memory. You can select the next two sequential pages or the previous page quickly.
- Press the red button to select the previous page.
- Press the blue button to select the next sequential page.

5. Hold — ⇳ (For RC 6940 only)

A selected page number sometimes contains a few sub-pages. The sub-page will automatically rotate to the next sub-page after about 20 seconds. The total numbers of sub-pages are indicated on the top right corner of the screen. (e.g. 1/4)
- Press the ⇳ button to hold a sub-page to read the text at your own pace, ⊞ symbol appears at the top left corner of the screen indicating that the page is on hold.
- Press the ⇳ button to resume page rotation.

6. Reveal — ?

Sometimes a Teletext page contains concealed information such as in a quiz or puzzle.
- Press the ? button to reveal the concealed information.
- Press the ? button again to hide the concealed information.

7. Interrupt — X (For RC 6940 only)

To swap the Teletext and TV mode.
- Press the X button to change to the TV mode. The TV programme appears and the ■ symbol appears at the top left corner of the screen indicating that the page is swapped.
- Press the X button again to return to the Teletext page.

8. Mix — ◪

- Press ◪ button to superimpose the Teletext page over the TV programmes on the screen.
- Press ◪ button again to return to the Teletext page.

9. Enlarge — ✦

This mode enables you to view the Teletext page at double size in two pages.
- Press the ✦ button to view the top half of the Teletext page.
- Press the ✦ button again to view the bottom half of the Teletext page.
- Press the ✦ button once more to return to normal size Teletext page.

10. Subcode /Time Display — ● (For RC 6940 only)

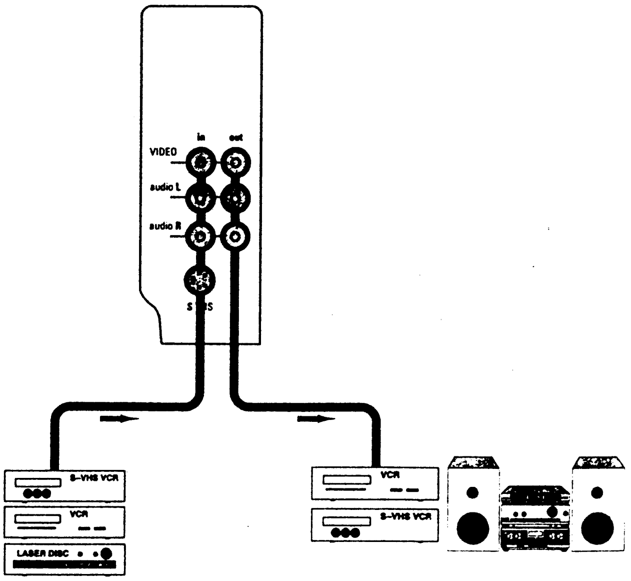
By adding a subcode, you can call up a sub-page and hold it.
- Enter the Teletext page number (the Teletext page must have sub-pages in it).
- Press the ● button.
- Enter the subpage with 4 digits : e.g. 0003 for 3/4 (third of 4 pages).
- Press the X button.

The TV programme appears and the digits 0003 will be displayed as soon as the sub-page has been found.
- Press the X button to switch to the Teletext mode.
- Press the ● button to cancel the subcode.

To display the time (only applicable to those channels that is broadcasting Teletext)
- Press the ● button to switch on the time display. The time is displayed on the top right hand corner of the screen.
- Press the ● button to switch off the time display.

Rear and antenna connections are located at the back panel of the TV set while headphone connection is located in the front. Drawings below are graphical representation of the connection options of the TV set.

Rear Connections



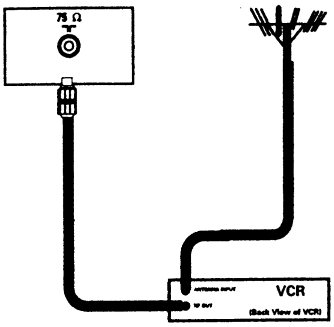
AV INPUT
Connect the Video and Audio Left sockets to your mono VCR. If stereo VCR or Laser Disc are used, connect the Audio Right socket also. If you have a S-VHS VCR, you can enhance the picture quality by using the S VHS socket.
Note : S-VHS signal will have priority over Video signal if both are connected.

AV OUTPUT
Allows you to record what you are viewing on the TV onto a VCR. Connect the Video, Audio Left and Right sockets respectively. If a S-VHS VCR is used, connect to the S-VHS socket instead of the Video socket.
Note : S-VHS signal will have priority over Video signal if both are connected.

You can also enhance the sound of your TV by connecting the Audio Left and Right sockets to your external amplifier.

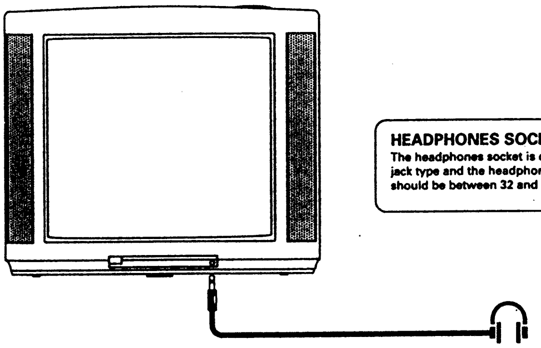
Directions for use

Antenna Connection



ANTENNA RF INPUT
You can connect the antenna either through the VCR or directly to the TV. Connect the antenna to the RF input of the VCR and from the VCR RF output, connect to the antenna input (⫟) of your TV.

Headphone Connection



HEADPHONES SOCKET
The headphones socket is of the 3.5 mm jack type and the headphones used should be between 32 and 4000 ohms.

To store the Video Cassette Recorder (VCR) signal on a channel number

(Please refer to section on 'Peripherals Equipment Connections' on how to connect your VCR.)

NOTE : Your VCR could already have pre–tuned TV channel numbers stored. For detailed connection and installation of the VCR, please refer to the Instruction Manual of the VCR.

1. Switch on the TV and the VCR.

In most VCR, there is a test signal switch located at the back of the set.
2a. Switch the test signal switch from the off position to the test signal position. (see Fig. 1)

If your VCR does not have the test signal switch, you can used a pre–recorded tape to simulate the video signal.
2b. Insert a pre–recorded tape into the VCR and press the PLAY button on the VCR. (see Fig. 2)

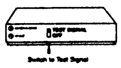


Fig. 1

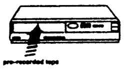
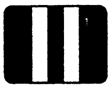


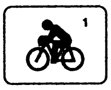
Fig. 2

3. Perform a manual searching (see section under "To Store the TV Stations Manually") to search for the VCR test signal or the tape signal.

4. When the VCR test signal or the video tape signal is located, select the desired channel number to be stored. Then press the INSTALL button to store the channel number.

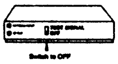


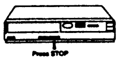
VCR test signal



Video tape signal

5. Switch back the test signal switch on the VCR to the off position (or stop the VCR if you are using the pre–recorded tape).





6. Switch off the TV and the VCR.

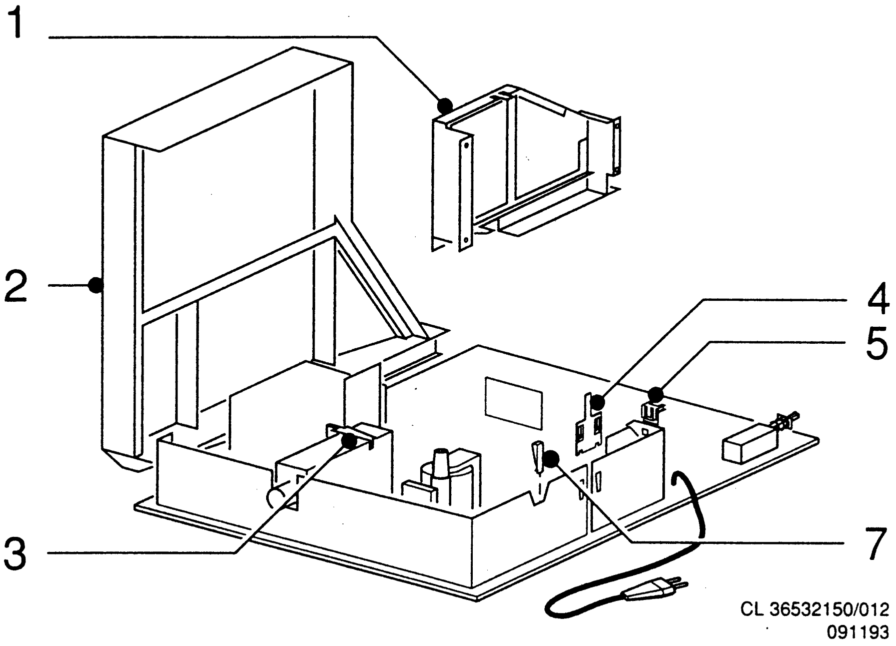
	21"	25"
Picture Tube Size	21" (51 cm)	25" (59 cm)
Audio Output : Speakers : Woofer	2 x 2 W 4W	
Channel Numbers	VHF (I, III) and UHF with 70 pre-selections	
Tuning System	VST	
Antenna Input	75 ohm co-axial	
Connections : AV Input / Output : Headphones Socket	1 x Video, 2 x Audio Sockets, 1 x S-VHS Ø 3.5 mm	
Dimensions (Width x Height x Depth)	(576 x 440 x 484) mm	(648 x 500 x 501) mm
Weight (Approx. Only and without packaging)	24 kg	31 kg

		VERSION /XX								
		52	56	57	58	59	69	75	79	93
TV System	PAL B/G	•	•				•		•	
	PAL B/H							•		
	PAL D									•
	PAL I			•						•
	PAL/SECAM B/G/D/K		•	•	•	•	•			•
	NTSC M		•	•			•			•
	PAL 60 Playback	•	•	•	•	•	•	•	•	•
Operating Voltage	160 – 250 V~, 50/60 Hz	•			•					
	220 V ~, 50/60 Hz									•
	230 V~, 50/60 Hz								•	
	240 V~, 50/60 Hz							•		
	100 – 250 V~, 50/60 Hz		•	•		•	•			

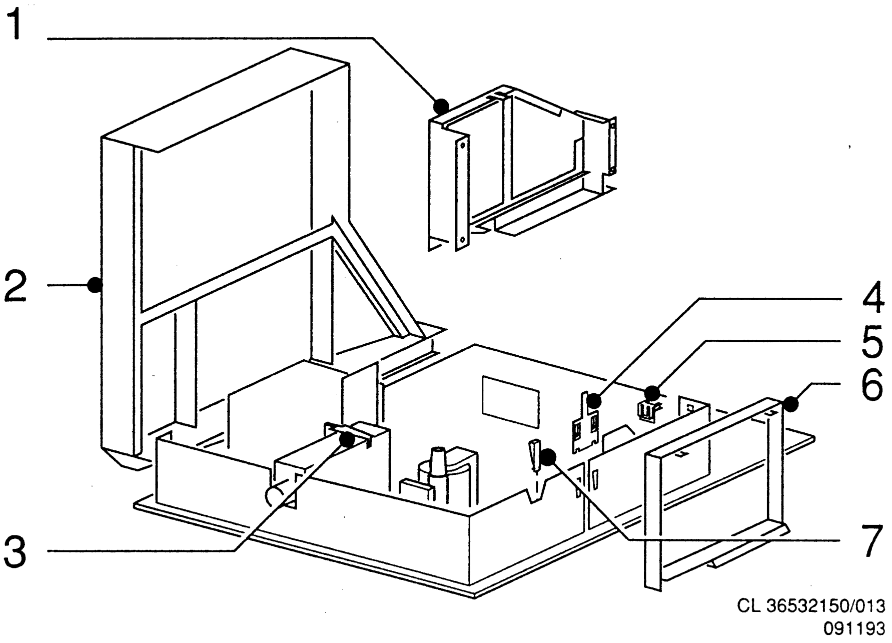
NOTE : Please refer to the type plate at the rear of the TV set or the Identification Sticker on the carton box for reference to the version number for the set.

10. Spare parts list

Chassis 21"


1
2
3
4
5
7
CL 36532150/012
091193

Chassis 25"


1
2
3
4
5
6
7
CL 36532150/013
091193

Main carrier 21 and 25" [A], [AA], [B], [C], [D]

Various

1	4822 404 31327	Bracket for TXT panels
2	4822 404 30359	Bracket for 2CS + I/O + ampl panel
3	4822 404 31356	Bracket for QSS panel
4	4822 404 21263	Bracket clamping heatsinks
5	4822 404 31363	Mains cord relief
6	4822 404 31357	Bracket for mains input panel (25")
7▲	4822 492 70289	Spring for SOPS tor 21" and line tors
	4822 492 62076	Spring for SOPS tor 25" and frame tors
▲	4822 404 31362	Spring for east/west transistor
	4822 404 31358	Spring for 6529 (21")
▲	4822 265 20366	1 pin header 2.35 mm
▲	4822 267 40646	2 pins header 2.35 mm
▲	4822 265 20441	3 pins header
	4822 265 31101	3 pins male BTB (AU)
	4822 264 40207	3 pins male WTB
	4822 417 50217	4 pins male BTB (AU)
	4822 265 30796	4 pins header (M5)
	4822 265 30378	4 pins male WTB
	4822 265 31181	5 pins male WTB (M25)
	4822 265 30934	5 pins header (M26)
	4822 267 50591	6 pins male BTB (AU)
	4822 290 40295	7 pins male WTB
	4822 264 50148	8 pins male BTB (AU)
	4822 265 40818	8 pins male WTB
▲	4822 532 61201	EHT cable spacer
▲	4822 276 13431	Mains switch
▲	4822 256 30496	Fuse holder
	4822 410 63149	Push button for 21" mains switch
1000	4822 210 10448	UV915E
1000	4822 210 10459	UV913/IEC
1015	4822 242 72197	OFWK2950M 38.9 MHz
1015	4822 242 81637	OFWK3952M 38.9 MHz
1105	4822 242 72547	5.5 MHz
1106	4822 242 72057	6.5 MHz
1204	4822 242 71207	4.5 MHz
1206	4822 242 81529	5.5 MHz
1207	4822 242 81301	6.5 MHz
1208	4822 153 30025	6.0 MHz
1208	4822 242 81529	5.5 MHz
1275	4822 242 81691	4.433619 MHz
1277	4822 242 81575	3.579500 MHz
1449▲	4822 071 54001	Fuse 400 mA T
1449▲	4822 071 55001	Fuse 500 mA T
1500▲	4822 070 33152	Fuse 3.15 AT
1540▲	4822 071 52502	Fuse 2.5 A T
1630	4822 242 81727	10MHz

-||-

2001	4822 126 12642	10nF 20% 50V
2007	4822 121 41856	22nF 5% 250V
2008	5322 121 42386	100nF 5% 63V
2009	4822 126 12642	10nF 20% 50V
2010	4822 124 40202	1500µF 20% 16V
2016	4822 126 12642	10nF 20% 50V
2017	4822 122 31348	120pF 2% 100V
2026	4822 122 31056	12pF 2% 100V
2027	4822 126 12642	10nF 20% 50V
2101	4822 122 33532	3.3nF 5% 50V
2102	4822 122 31072	47pF 2% 100V
2102	4822 126 12789	82pF 5% 50V
2103	4822 121 51231	820pF 1% 400V
2104	4822 124 40248	10µF 20% 63V
2112	4822 122 31072	47pF 2% 100V
2112	4822 126 12519	330pF 10%
2123	4822 126 12639	2.2nF 20%
2208	4822 122 33449	47nF 30% 50V
2212	5322 121 42386	100nF 5% 63V
2213	4822 121 42868	220nF 5% 50V
2219	4822 121 51319	1µF 10% 63V
2220▲	4822 124 40433	47µF 20% 25V
2221	5322 121 42386	100nF 5% 63V
2222	4822 124 41576	2.2µF 20% 50V
2223	5322 121 42386	100nF 5% 63V
2224	4822 124 41643	100µF 20% 16V
2225	4822 126 12643	22nF 20% 50V
2228	4822 121 51252	470nF 5% 63V
2236	5322 122 32491	1nF 20% 100V
2243	4822 126 12643	22nF 20% 50V
2245	5322 121 42386	100nF 5% 63V
2246	4822 121 42408	220nF 5% 63V
2248	5322 122 32491	1nF 20% 100V
2249	5322 122 32491	1nF 20% 100V
2251	4822 126 12643	22nF 20% 50V
2253	4822 126 12643	22nF 20% 50V
2254	5322 124 41431	22µF 20% 35V
2256	5322 121 42386	100nF 5% 63V
2257	5322 121 42386	100nF 5% 63V
2260	4822 122 31061	18pF 2% 100V
2261	4822 126 12643	22nF 20% 50V
2262▲	4822 124 40433	47µF 20% 25V
2264	4822 126 12643	22nF 20% 50V
2265	4822 124 41576	2.2µF 20% 50V
2272	4822 126 12641	4.7nF 20%
2273	5322 121 42386	100nF 5% 63V
2275	5322 122 32334	220pF 10% 100V
2277	5322 122 32334	220pF 10% 100V
2280	4822 121 43526	47nF 5% 250V
2281	5322 122 32491	1nF 20% 100V
2282	5322 122 32491	1nF 20% 100V
2283	5322 122 32491	1nF 20% 100V
2284	4822 121 43526	47nF 5% 250V
2285	4822 121 43526	47nF 5% 250V
2401	4822 122 31176	390pF 10% 500V
2401	4822 126 12791	390pF 10% 50V
2402	5322 121 42386	100nF 5% 63V
2403	4822 126 11134	5.6nF 10% 50V
2404	4822 124 21511	2200µF 20% 25V
2404	4822 124 40785	3300µF 20% 25V
2405	4822 124 21212	15µF 20% 40V
2405	5322 124 41431	22µF 20% 35V
2414	4822 126 12639	2.2nF 20%
2415	4822 124 80059	100µF 20% 25V
2416	4822 121 43526	47nF 5% 250V
2421	4822 122 33305	2.7nF 5% 50V
2422	4822 121 51252	470nF 5% 63V
2423	4822 126 12864	2.2nF 2% 250V
2424	4822 124 40242	1µF 20% 63V
2425	4822 126 12642	10nF 20% 50V
2426	5322 121 42386	100nF 5% 63V
2427	4822 126 12641	4.7nF 20%
2428	4822 122 30045	27pF 2% 100V
2431	4822 122 33449	47nF 30% 50V
2432	4822 122 33449	47nF 30% 50V
2433	4822 122 33449	47nF 30% 50V
2439	4822 122 31175	1nF 10% 500V
2439	4822 126 11308	47pF 5% 500V
2440	4822 126 12519	330pF 10%
2441▲	4822 126 11382	1nF 10% 1KV
2442	4822 122 32986	560pF 50
2442	4822 126 13172	560pF 10% 500V
2443▲	4822 124 40196	220µF 20% 16V
2444	4822 121 43139	180nF 10% 100V
2445▲	4822 126 12269	680pF 10% (HR) 2KV
2446▲	4822 121 70355	5.6nF 5% 2KV
2446▲	4822 121 70465	11nF 5% 1.6KV
2447▲	4822 126 12272	1nF 10% (HR) 2KV
2447▲	4822 126 12273	1200pF 10% (HR) 2KV
2448	4822 124 22583	47µF 160V
2449▲	4822 126 11382	1nF 10% 1KV
2450▲	4822 121 42073	390 nF 10% 400V
2450	4822 121 42442	560nF 200V
2451	5322 124 40641	10µF 20% 100V
2452	4822 124 22582	2.2mF 20% 16V
2452	4822 124 40432	1500µF 20% 25V
2453	4822 124 41747	680µF 20% 35V
2456	4822 126 11308	47pF 5% 500V
2457▲	4822 121 43405	18nF 10% 250V
2457	4822 121 70466	82nF 10% 250V
2458▲	4822 121 70355	5.6nF 5% 2KV
2460	4822 121 51385	33nF 20% 100V
2470	4822 124 10533	22µF 20% 250V
2472	4822 126 12792	2.2nF 10% 500V
2480	4822 124 80604	47µF 20% 50V
2481	4822 121 43526	47nF 5% 250V
2482	4822 124 40242	1µF 20% 63V
2483	4822 124 40753	6.8µF 20% 63V
2484	4822 126 12639	2.2nF 20%
2500▲	4822 121 51457	470nF 10% 275V
2501	4822 121 70141	33nF 5% 400V
2502	4822 126 12793	2.2nF 10% 2KV
2503	4822 126 12793	2.2nF 10% 2KV
2504	4822 126 12793	2.2nF 10% 2KV
2505	4822 124 41764	100µF 20% 400V
2505▲	4822 124 42168	330µF 400V
2505	4822 124 80855	330µF 20% 400V
2513	4822 126 12792	2.2nF 10% 500V
2520▲	4822 126 12269	680pF 10% (HR) 2KV
2521▲	4822 126 11254	330pF 10% 2KV
2521▲	4822 126 12272	1nF 10% (HR) 2KV
2523▲	4822 126 12269	680pF 10% (HR) 2KV
2525▲	4822 122 40602	1nF 20% 400V
2526	4822 121 42071	3.9nF 10% 400V
2527▲	4822 122 40602	1nF 20% 400V
2528▲	4822 122 40602	1nF 20% 400V
2530▲	4822 126 11382	1nF 10% 1KV
2530▲	4822 126 12272	1nF 10% (HR) 2KV
2531	4822 124 22583	47µF 160V
2540	4822 124 42106	1500µF 20% 35V
2541▲	4822 126 11382	1nF 10% 1KV
2561	5322 124 41431	22µF 20% 35V
2605	4822 124 41566	3.3µF 20% 50V
2606	4822 126 12643	22nF 20% 50V
2607	4822 122 33293	100pF 5% 50V
2608	5322 122 32356	820pF 10% 100V
2610	5322 122 32356	820pF 10% 100V
2615	5322 122 32356	820pF 10% 100V
2620	4822 124 40242	1µF 20% 63V
2621	4822 126 12643	22nF 20% 50V
2624	5322 122 32356	820pF 10% 100V
2625	5322 122 32356	820pF 10% 100V
2626	5322 122 32356	820pF 10% 100V
2627	5322 122 32356	820pF 10% 100V
2628	5322 122 32356	820pF 10% 100V
2636	4822 126 12642	10nF 20% 50V
2638	5322 122 32491	1nF 20% 100V
2640	4822 122 30045	27pF 2% 100V
2648	4822 124 40248	10µF 20% 63V
2655	5322 122 32334	220pF 10% 100V
2656	5322 121 42661	330nF 5% 63V
2682▲	4822 124 40433	47µF 20% 25V
2683	5322 121 42386	100nF 5% 63V
2685	4822 124 41596	22µF 20% 50V
2687	4822 124 40242	1µF 20% 63V
2688	5322 122 32491	1nF 20% 100V
2692	4822 124 40242	1µF 20% 63V
2695	4822 124 41596	22µF 20% 50V
2700	4822 124 40753	6.8µF 20% 63V
2703▲	4822 124 40433	47µF 20% 25V
2711	4822 126 12643	22nF 20% 50V
2714	5322 122 32334	220pF 10% 100V
2721	5322 122 32143	22pF 100V
2722	5322 122 32143	22pF 100V
2726	4822 122 33293	100pF 5% 50V
2727	4822 122 33293	100pF 5% 50V
2728	4822 122 33293	100pF 5% 50V

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3000	4822 116 52263	2k7 5% 0.5W
3004	4822 116 52207	1k2 5% 0.5W
3005	4822 116 52207	1k2 5% 0.5W
3010▲	4822 052 10109	10Ω 5% 0.33W
3016▲	4822 116 52269	3k3 5% 0.5W
3017	4822 116 52257	22k 5% 0.5W
3018▲	4822 116 52256	2k2 5% 0.5W
3106	4822 116 52228	680Ω 5% 0.5W
3113	4822 050 11002	1k 1% 0.4W
3128	4822 050 11002	1k 1% 0.4W
3198	4822 116 52234	100k 5% 0.5W
3198	4822 116 52285	470k 5% 0.5W
3198	4822 116 52291	56k 5% 0.5W
3198	4822 116 52297	68k 5% 0.5W
3198	4822 116 52303	8k2 5% 0.5W
3199	4822 116 52251	18k 5% 0.5W
3199	4822 116 52257	22k 5% 0.5W
3201	4822 050 11002	1k 1% 0.4W
3204▲	4822 116 52256	2k2 5% 0.5W
3205▲	4822 116 52256	2k2 5% 0.5W
3206	4822 116 52175	100Ω 5% 0.5W
3206	4822 116 52213	180Ω 5% 0.5W
3207▲	4822 116 52269	3k3 5% 0.5W
3208	4822 050 11002	1k 1% 0.4W
3210	4822 116 52234	100k 5% 0.5W
3211▲	4822 050 23301	330Ω 1% 0.6W
3212▲	4822 116 52283	4k7 5% 0.5W
3213	4822 116 52234	100k 5% 0.5W
3214	4822 050 11002	1k 1% 0.4W
3225▲	4822 116 52283	4k7 5% 0.5W
3236	4822 116 52233	10k 5% 0.5W
3250	4822 116 52233	10k 5% 0.5W
3251	4822 116 52233	10k 5% 0.5W
3252	4822 116 52176	10Ω 5% 0.5W
3253	4822 116 52176	10Ω 5% 0.5W
3254	4822 116 52226	560Ω 5% 0.5W
3255	4822 050 11002	1k 1% 0.4W
3256	4822 050 11002	1k 1% 0.4W
3257	4822 050 11002	1k 1% 0.4W
3259	4822 050 11002	1k 1% 0.4W
3261	4822 116 52271	33k 5% 0.5W
3262	4822 116 52296	6k8 5% 0.5W
3263	4822 116 52244	15k 5% 0.5W
3264	4822 100 20168	10k 30% LIN 0.1W
3265	4822 116 52207	1k2 5% 0.5W
3267	4822 116 52244	15k 5% 0.5W
3268	4822 116 52233	10k 5% 0.5W
3270	4822 116 52264	27k 5% 0.5W
3271▲	4822 116 52283	4k7 5% 0.5W
3273	4822 116 52234	100k 5% 0.5W
3278▲	4822 116 52283	4k7 5% 0.5W
3283	4822 050 11002	1k 1% 0.4W
3284	4822 050 11002	1k 1% 0.4W
3400▲	4822 116 52256	2k2 5% 0.5W
3400▲	4822 116 52283	4k7 5% 0.5W
3401	4822 116 52243	1k5 5% 0.5W
3403	4822 116 52263	2k7 5% 0.5W
3404	4822 116 52243	1k5 5% 0.5W
3405	4822 116 52182	15Ω 5% 0.5W
3405	4822 116 81154	2Ω2 5% 0.5W
3406	4822 116 52244	15k 5% 0.5W
3406	4822 116 52257	22k 5% 0.5W
3407	4822 116 52264	27k 5% 0.5W
3407	4822 116 52271	33k 5% 0.5W
3408	4822 273 30395	3 pos switch 21"
3408	4822 273 30397	3 pos switch 25"
3409	4822 116 52276	3k9 5% 0.5W
3410	4822 100 11391	330Ω 30% LIN 0.1W
3411	4822 116 81039	1Ω8 5% 0.5W
3412	4822 116 81039	1Ω8 5% 0.5W
3413▲	4822 053 10221	220Ω 5% 1W
3414▲	4822 116 52256	2k2 5% 0.5W
3415▲	4822 116 52256	2k2 5% 0.5W
3416▲	4822 117 10423	390Ω 5% 2W
3420	4822 100 20166	10k 30% LIN 0.1W
3421	4822 116 52305	820k 5% 0.5W
3422	4822 116 52251	18k 5% 0.5W
3423	4822 116 52195	47Ω 5% 0.5W
3424	4822 053 10391	390Ω 5% 1W
3425	4822 116 52278	390k 5% 0.5W
3426	4822 116 52298	680k 5% 0.5W
3427	4822 116 52305	820k 5% 0.5W
3428	4822 116 52257	22k 5% 0.5W
3429	4822 116 52234	100k 5% 0.5W
3430	4822 116 52235	1M 5% 0.5W
3432	4822 116 52298	680k 5% 0.5W
3433▲	4822 116 52272	330k 5% 0.5W
3434	4822 116 52263	2k7 5% 0.5W
3435	4822 116 52263	2k7 5% 0.5W
3436	4822 050 24705	4M7 1% 0.6W
3437	4822 116 52296	6k8 5% 0.5W
3438	4822 116 52303	8k2 5% 0.5W
3439▲	4822 116 52269	3k3 5% 0.5W
3440▲	4822 116 52199	68Ω 5% 0.5W
3441	4822 053 10223	22k 5% 1W
3442	4822 116 52289	5k6 5% 0.5W
3443▲	4822 050 21802	1k8 1% 0.6W
3444	4822 053 11562	5k6 5% 2W
3445	4822 116 52195	47Ω 5% 0.5W
3446	4822 116 52213	180Ω 5% 0.5W
3446	4822 116 52216	240Ω 5% 0.5W
3447	4822 116 52296	6k8 5% 0.5W
3448▲	4822 052 10108	1Ω 5% 0.33W
3448▲	4822 052 11108	1Ω 5% 0.5W
3449▲	4822 050 21802	1k8 1% 0.6W
3450	4822 050 22202	2k2 1% 0.6W
3451	4822 116 52271	33k 5% 0.5W
3452▲	4822 052 11108	1Ω 5% 0.5W
3453▲	4822 052 10222	2k2 5% 0.33W
3454▲	4822 052 10222	2k2 5% 0.33W
3456▲	4822 053 20334	330k 5% 0.25W
3460	4822 116 52254	20k 5% 0.5W
3470▲	4822 052 10828	8Ω2 5% 0.33W
3480▲	4822 052 10108	1Ω 5% 0.33W
3481	4822 116 52284	47k 5% 0.5W
3482	4822 116 52284	47k 5% 0.5W
3483▲	4822 116 52283	4k7 5% 0.5W
3484	4822 100 11213	22k 30% LIN 0.1W
3485	4822 050 11002	1k 1% 0.4W
3486	4822 116 52291	56k 5% 0.5W
3487	4822 116 52235	1M 5% 0.5W
3488	4822 116 52234	100k 5% 0.5W
3501	4822 116 40204	30Ω 30%
3501	4822 116 40247	18Ω 270V
3502	4822 111 20403	470Ω 10%
3503	4822 113 80646	1Ω2 10% 5W
3503	4822 113 80647	1Ω2 5% 5W
3504▲	4822 053 21475	4M7 5% 0.5W
3505	4822 113 80646	1Ω2 10% 5W
3505	4822 113 80647	1Ω2 5% 5W
3506	4822 053 11273	27k 5% 2W
3507	4822 116 52263	2k7 5% 0.5W
3519	4822 117 10422	0.33Ω 5% 3W
3520	4822 113 80637	1.5k 5W
3521▲	4822 052 10222	2k2 5% 0.33W
3522	4822 116 52206	120Ω 5% 0.5W
3522	4822 116 52221	360Ω 5% 0.5W
3525▲	4822 116 60127	4M 7 5% 1W
3526	4822 053 11473	47k 5% 2W
3528▲	4822 052 10108	1Ω 5% 0.33W
3529	4822 116 52298	680k 5% 0.5W
3530	4822 116 52231	820Ω 5% 0.5W
3542	4822 116 52191	33Ω 5% 0.5W
3560▲	4822 050 21501	150Ω 1% 0.6W
3560	4822 116 52213	180Ω 5% 0.5W
3561	4822 116 52195	47Ω 5% 0.5W
3562	4822 116 52224	470Ω 5% 0.5W
3563▲	4822 116 52215	220Ω 5% 0.5W
3565	4822 116 52233	10k 5% 0.5W
3598▲	4822 116 52272	330k 5% 0.5W
3603▲	4822 116 52269	3k3 5% 0.5W
3604	4822 116 52175	100Ω 5% 0.5W
3605	4822 116 52228	680Ω 5% 0.5W
3608	4822 116 52175	100Ω 5% 0.5W
3609	4822 116 52175	100Ω 5% 0.5W
3611	4822 116 52175	100Ω 5% 0.5W
3612	4822 116 52304	82k 5% 0.5W
3617	4822 116 52175	100Ω 5% 0.5W
3622	4822 116 52284	47k 5% 0.5W
3625	4822 050 11002	1k 1% 0.4W
3626	4822 116 52284	47k 5% 0.5W
3627▲	4822 116 52283	4k7 5% 0.5W
3633	4822 050 11002	1k 1% 0.4W
3634	4822 116 52297	68k 5% 0.5W
3635	4822 116 52233	10k 5% 0.5W
3636	4822 050 11002	1k 1% 0.4W
3637	4822 116 52278	390k 5% 0.5W
3638	4822 116 52258	220k 5% 0.5W
3640	4822 116 52297	68k 5% 0.5W
3641	4822 116 52271	33k 5% 0.5W
3646	4822 116 52175	100Ω 5% 0.5W
3647	4822 116 52211	150Ω 5% 0.5W
3648	4822 116 52261	24k 5% 0.5W
3649	4822 116 52238	12k 5% 0.5W
3650	4822 116 52244	15k 5% 0.5W
3652	4822 116 52258	220k 5% 0.5W
3653	4822 116 52211	150Ω 5% 0.5W
3654	4822 116 52244	15k 5% 0.5W
3656	4822 116 52233	10k 5% 0.5W
3661	4822 116 52249	1k8 5% 0.5W
3662	4822 116 52289	5k6 5% 0.5W
3670	4822 116 52226	560Ω 5% 0.5W
3671	4822 116 52226	560Ω 5% 0.5W
3685	4822 116 52284	47k 5% 0.5W
3687	4822 116 52284	47k 5% 0.5W
3688	4822 116 52175	100Ω 5% 0.5W
3689	4822 116 52175	100Ω 5% 0.5W
3690	4822 116 52175	100Ω 5% 0.5W
3691	4822 116 52284	47k 5% 0.5W
3693	4822 116 52284	47k 5% 0.5W
3694	4822 116 52195	47Ω 5% 0.5W
3696▲	4822 116 52283	4k7 5% 0.5W
3697	4822 116 52175	100Ω 5% 0.5W
3698	4822 116 52175	100Ω 5% 0.5W
3699	4822 116 52303	8k2 5% 0.5W
3700	4822 116 52284	47k 5% 0.5W
3702	4822 116 52239	120k 5% 0.5W
3703	4822 116 52284	47k 5% 0.5W
3704	4822 116 52233	10k 5% 0.5W
3706	4822 116 52252	180k 5% 0.5W
3707▲	4822 116 52256	2k2 5% 0.5W
3708	4822 116 52234	100k 5% 0.5W
3709	4822 050 11002	1k 1% 0.4W
3710	4822 116 52222	390Ω 5% 0.5W
3713	4822 116 52278	390k 5% 0.5W
3715	4822 116 52249	1k8 5% 0.5W
3717▲	4822 116 52269	3k3 5% 0.5W
3718▲	4822 116 52269	3k3 5% 0.5W
3719	4822 116 52233	10k 5% 0.5W
3726▲	4822 116 52283	4k7 5% 0.5W
3727▲	4822 116 52283	4k7 5% 0.5W
3728▲	4822 116 52283	4k7 5% 0.5W
4xxx	4822 051 10008	0Ω 5% 0.25W

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5014	4822 157 63065	0.68µH
5020	4822 157 70439	Toko
5060	4822 157 71112	3.3µH 10%
5100	4822 157 71039	120µH 5%
5112▲	4822 157 52286	22µH 10%
5112	4822 157 53906	47µH 10%
5206	4822 152 20667	5.6µH 10%
5206	4822 157 53303	12µH 10%
5209▲	4822 157 52265	100µH 10%
5260	4822 157 71119	Toko
5286	4822 152 20667	5.6µH 10%
5286	4822 157 53303	12µH 10%
5287	4822 152 20667	5.6µH 10%
5287	4822 157 53303	12µH 10%
5288	4822 152 20667	5.6µH 10%
5288	4822 157 53303	12µH 10%
5424	4822 157 60122	4.7µH 10%
5441	4822 146 21116	Line driver trafo 21"
5441	4822 146 10111	Line driver trafo 25"
5443▲	4822 157 51462	10µH 10%
5445▲	4822 140 10486	Line trafo 21"
5445▲	4822 140 10494	Line trafo 25"
5449▲	4822 157 51462	10µH 10%
5454	4822 157 63702	Lin. corrector 21"
5454	4822 157 71118	Lin. corrector 25"
5481	4822 157 62336	100µH 10%
5500▲	4822 157 70699	Mains filter
5513	4822 157 60171	Bead
5520	4822 157 60171	Bead
5522	4822 157 60122	4.7µH 10%
5523	4822 157 71113	10µH 10%
5525▲	4822 146 31347	SOPS trafo 21"
5525▲	4822 146 31348	SOPS trafo 25"
5529	4822 157 71121	Bead
5530	4822 157 60171	Bead
5530	4822 157 71121	Bead
5531	4822 157 63698	33µH
5531	4822 158 10551	27µH
5532	4822 157 60171	Bead
5540	4822 157 60171	Bead
5543	4822 157 52259	5.6µH
5546	4822 157 60171	Bead
5620▲	4822 157 52285	6.8µH 10%
5620	4822 157 71112	3.3µH 10%
5621▲	4822 157 52285	6.8µH 10%
5621	4822 157 71112	3.3µH 10%
5711▲	4822 157 52285	6.8µH 10%
5720▲	4822 157 52286	22µH 10%

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6016	5322 130 34955	BA482
6254	4822 130 34233	BZX79-C5V1
6280▲	4822 130 30621	1N4148
6283	4822 130 34174	BZX79-C4V7
6284▲	4822 130 30621	1N4148
6286▲	4822 130 30621	1N4148
6287▲	4822 130 30621	1N4148
6288▲	4822 130 30621	1N4148
6412	4822 130 34189	BAV20
6415▲	4822 130 30621	1N4148
6416	4822 130 42488	BYD33D
6417▲	4822 130 34173	BZX79-C5V6
6420	5322 130 34563	BZX79-C2V7
6423	4822 130 34382	BZX79-C8V2
6425	4822 130 31983	BAT85
6426	4822 130 31983	BAT85
6427	4822 130 31983	BAT85
6428	4822 130 34382	BZX79-C8V2
6438	4822 130 34328	BZX79-B30
6439▲	4822 130 31631	BYV10-20
6441▲	4822 130 30621	1N4148
6442	4822 130 42606	BYD33J
6443	4822 130 42489	BYD33G
6445▲	4822 130 80432	BY627
6446▲	4822 130 83457	BYD34M
6446	5322 130 31559	BY448
6447	4822 130 42488	BYD33D
6447▲	4822 130 83457	BYD34M
6449	4822 130 42489	BYD33G
6450	4822 130 42488	BYD33D
6451	4822 130 42488	BYD33D
6452	4822 130 42488	BYD33D
6455	4822 130 34382	BZX79-C8V2
6470	4822 130 42489	BYD33G
6480▲	4822 130 61219	BZX79-C10
6500	4822 130 82158	D3SBA60
6506	4822 130 34499	BZX79-C20
6507	4822 130 80928	BZX79-C30
6508	4822 130 80928	BZX79-C30
6512▲	4822 130 30621	1N4148
6513▲	4822 130 30621	1N4148
6519	5322 130 31574	BZT03-C15
6520	4822 130 42606	BYD33J
6526▲	4822 130 32896	BYD33M
6529▲	4822 130 33531	BY229F-600
6531▲	4822 130 33531	BY229F-600
6540	4822 130 81104	MA689
6541	4822 130 81104	MA689
6542▲	4822 130 34173	BZX79-C5V6
6562	4822 130 34174	BZX79-C4V7
6565	5322 130 31504	BZX79-C3V3
6606▲	4822 130 34173	BZX79-C5V6
6607▲	4822 130 30621	1N4148
6618	4822 130 34382	BZX79-C8V2
6632▲	4822 130 30621	1N4148
6633	4822 130 34174	BZX79-C4V7
6645▲	4822 130 30621	1N4148
6648	4822 130 82037	HZT33
6715▲	4822 130 30621	1N4148

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7000	4822 209 10892	LA7910
7109	4822 130 40938	BC548
7212▲	4822 130 44197	BC558B
7213▲	4822 130 44197	BC558B
7214	4822 130 40941	BC558
7215	4822 130 40938	BC548
7218	5322 209 86283	L7808CP
7225	4822 209 32532	TDA8362C/N3
7245	4822 209 32359	TDA8395/N1
7255	4822 209 31714	TDA4661/V2
7270	4822 130 40938	BC548
7278	4822 130 41376	BF494B
7400	4822 209 33321	TDA3654/N3
7400	4822 209 60955	TDA3653B/N1
7423	4822 130 40938	BC548
7430	5322 130 60803	BST72A
7439	5322 130 44647	BC368
7440	4822 130 41782	BF422
7440	4822 130 42159	BF819
7445	4822 130 60851	2SC3973B
7445	4822 130 63569	BU1508DX
7446	4822 130 41646	BF423
7480	4822 130 40824	BD136
7481	4822 130 40938	BC548
7513▲	4822 130 63409	STP6N60FI
7513▲	4822 130 63499	STH12N60FI
7563	4822 130 40941	BC558
7600	4822 209 33322	PCA84C844P/133
7634	4822 130 40937	BC548B
7635	4822 130 40937	BC548B
7636	4822 130 40938	BC548
7647	4822 130 41594	PH2369
7710	4822 209 52316	ST24C04B1

Power supply control panel [A], [AA]

Various

	4822 212 31337	Power supply control panel 21"
	4822 212 31345	Power supply control panel 25"
▲	4822 265 40469	6 pins female BTB (AU)

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2506	5322 121 10472	47MU/25
2507	4822 121 43526	47nF 5% 250V
2508	4822 121 43187	27nF 5% 250V
2510	5322 122 32491	1nF 20% 100V
2510	5322 122 32334	220pF 10% 100V
2511	5322 122 32491	1nF 20% 100V
2511	5322 122 32334	220pF 10% 100V
2512	4822 121 51319	1µF 10% 63V
2514	4822 126 12639	2.2nF 20%
2515	4822 126 12639	2.2nF 20%
2516	4822 124 80371	4.7µF 50V
2517	4822 126 11157	470pF 10% 500V
2518	4822 126 12641	4.7nF 20%

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3508	4822 116 52249	1k8 5% 0.5W
3510▲	4822 116 52283	4k7 5% 0.5W
3511	4822 116 52264	27k 5% 0.5W
3512	4822 100 20166	10k 30%LIN 0.1W
3514	4822 050 11002	1k 1% 0.4W
3515▲	4822 116 52256	2k2 5% 0.5W
3515	4822 116 52231	820Ω 5% 0.5W
3517▲	4822 052 10339	33Ω 5% 0.33W
3517▲	4822 052 10229	22Ω 5% 0.33W
3518▲	4822 052 10471	470Ω 5% 0.33W
3518▲	4822 052 10151	150Ω 5% 0.33W
3523	4822 116 52245	150k 5% 0.5W
3523	4822 116 52278	390k 5% 0.5W
3524	4822 050 11002	1k 1% 0.4W
3524	4822 116 52243	1k5 5% 0.5W
4xxx	4822 051 10008	0Ω 5% 0.25W

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6509	4822 130 34174	BZX79-C4V7
6510	4822 130 31024	BZX79-B18
6511▲	4822 130 30621	1N4148

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7510	4822 209 32347	UC3842B
7512	5322 130 60803	BST72A

Mains input panel 25" [AA]

Various

	4822 212 31344	Mains input panel 25"
▲	4822 276 13431	Mains switch
▲	4822 256 30496	Fuse holder
▲	4822 265 20366	1 pin header 2.35 mm
▲	4822 267 40646	2 pins header 2.35 mm
▲	4822 265 20441	3 pins header
	4822 410 63148	Push button for mains switch
1500▲	4822 070 33152	Fuse 3.15 A T

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2500▲	4822 121 51457	470nF 10% 275V
2501	4822 121 70141	33nF 5% 400V
2502	4822 126 12793	2.2nF 10% 2KV
2503	4822 121 42059	100nF 10% 400V
2504	4822 126 12793	2.2nF 10% 2KV
2509▲	4822 124 41525	100µF 20% 25V
2527▲	4822 122 33665	3.3nF 20% 125V
2528▲	4822 122 33665	3.3nF 20% 125V

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3501▲	4822 116 40249	PTC 20Ω 265V
3502	4822 111 20403	470Ω 10%
3503▲	4822 113 80603	1.5Ω 10% 7W
3504▲	4822 053 21475	4M7 5% 0.5W
3505▲	4822 113 80603	1.5Ω 10% 7W
3506	4822 053 11273	27k 5% 2W
3507	4822 116 52263	2k7 5% 0.5W
3509	4822 116 40247	18Ω 270V
4xxx	4822 051 10008	0Ω 5% 0.25W

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5500▲	4822 157 70699	Mains filter

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6500	4822 130 80928	BZX79-C30
6501	4822 130 80928	BZX79-C30
6502▲	4822 130 80858	1N5062
6503▲	4822 130 80858	1N5062
6504▲	4822 130 80858	1N5062
6505▲	4822 130 80858	1N5062
6506	4822 130 34499	BZX79-C20

Scan protection panel 21" [A]

Various

	4822 212 31423	Scan protection panel 21"
	4822 265 30742	4 pins F-pin connector

-▭-

3436	4822 116 52303	8k2 5% 0.5W
3437	4822 116 52249	1k8 5% 0.5W
3438 '	4822 116 52259	2k4 5% 0.5W

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6438	4822 130 31024	BZX79-B18
6442	4822 130 42606	BYD33J

⊗ ▭

7446	4822 130 41646	BF423

CRT panel (narrow neck) [E], [EE]

Various

	4822 212 31347	CRT panel NN 21"
	4822 212 31343	CRT panel NN 25"
▲	4822 255 70254	Holder valve
▲	4822 265 20366	1 pin header 2.35 mm
	4822 265 30934	5 pins header
	4822 265 31153	5 pins header 21" (black)

⊣⊢

2302	4822 126 12643	22nF 20% 50V
2304	5322 122 32311	470pF 10% 100V
2304	4822 126 12519	330pF 10%
2306	4822 124 80495	4.7µF 20%
2309	4822 121 41926	33nF 5% 630V
2317	5322 122 32311	470pF 10% 100V
2317	4822 126 12519	330pF 10%
2330	5322 122 32311	470pF 10% 100V
2330	4822 126 12519	330pF 10%
2337	4822 126 12833	4.7nF 20% 2KV
2337	4822 121 70093	33nF 5% 2KV

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3300▲	4822 052 11101	100Ω 5% 0.5W
3300▲	4822 052 10101	100Ω 5% 0.33W
3301	4822 116 52252	180k 5% 0.5W
3301	4822 116 52265	270k 5% 0.5W
3302	4822 053 12123	12k 5% 3W
3303	4822 050 21502	1k5 1% 0.6W
3304▲	4822 116 52197	56Ω 5% 0.5W
3304	4822 116 52175	100Ω 5% 0.5W
3305▲	4822 116 52219	330Ω 5% 0.5W
3305▲	4822 116 52217	270Ω 5% 0.5W
3306	4822 116 52246	1k6 5% 0.5W
3307	5322 100 11542	4k7 30% LIN 0.1W
3308	4822 116 52175	100Ω 5% 0.5W
3309	4822 116 52211	150Ω 5% 0.5W
3310	4822 116 52289	5k6 5% 0.5W
3311	4822 116 52289	5k6 5% 0.5W
3312	4822 116 52289	5k6 5% 0.5W
3313	5322 100 11541	2k2 30% LIN 0.1W
3314	5322 100 11541	2k2 30% LIN 0.1W
3315	4822 053 12123	12k 5% 3W
3316	4822 050 21502	1k5 1% 0.6W
3317▲	4822 116 52197	56Ω 5% 0.5W
3317	4822 116 52175	100Ω 5% 0.5W
3318▲	4822 116 52219	330Ω 5% 0.5W
3318▲	4822 116 52217	270Ω 5% 0.5W
3319	4822 116 52246	1k6 5% 0.5W
3320	5322 100 11542	4k7 30% LIN 0.1W
3321	4822 116 52175	100Ω 5% 0.5W
3322	4822 116 52222	390Ω 5% 0.5W
3323	4822 116 52211	150Ω 5% 0.5W
3324	4822 116 52243	1k5 5% 0.5W
3325▲	4822 116 52269	3k3 5% 0.5W
3325▲	4822 116 52256	2k2 5% 0.5W
3326▲	4822 116 52217	270Ω 5% 0.5W
3327	4822 116 52228	680Ω 5% 0.5W
3328	4822 053 12123	12k 5% 3W
3329	4822 050 21502	1k5 1% 0.6W
3330▲	4822 116 52197	56Ω 5% 0.5W
3330	4822 116 52175	100Ω 5% 0.5W
3331	4822 116 52211	150Ω 5% 0.5W
3332▲	4822 116 52219	330Ω 5% 0.5W
3332▲	4822 116 52217	270Ω 5% 0.5W
3333	4822 116 52246	1k6 5% 0.5W
3334	5322 100 11542	4k7 30% LIN 0.1W
3335	4822 116 52175	100Ω 5% 0.5W
3336	4822 050 21502	1k5 1% 0.6W
3337	4822 050 21502	1k5 1% 0.6W
3338▲	4822 116 52283	4k7 5% 0.5W
3339▲	4822 116 52283	4k7 5% 0.5W
3340▲	4822 116 52283	4k7 5% 0.5W
3344▲	4822 052 10188	1Ω8 5% 0.33W
3345▲	4822 052 10188	1Ω8 5% 0.33W
4xxx	4822 051 10008	0Ω 5% 0.25W

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5306	4822 157 71114	470µH 10%
5319	4822 157 71114	470µH 10%
5328	4822 157 71114	470µH 10%
5338	4822 157 70702	8.2µH 10%
5338	4822 157 52136	82µH 10%

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6305	4822 130 34174	BZX79-C4V7
6306▲	4822 130 32896	BYD33M
6307	4822 130 34379	BZX79-C27
6308	4822 130 34379	BZX79-C27
6318	4822 130 34174	BZX79-C4V7
6319▲	4822 130 32896	BYD33M
6327	4822 130 34174	BZX79-C4V7
6328▲	4822 130 32896	BYD33M

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7305	4822 130 41773	BF869
7306	4822 130 40938	BC548
7306	4822 130 41376	BF494B
7318	4822 130 41773	BF869
7319	4822 130 40938	BC548
7319	4822 130 41376	BF494B
7325	4822 130 40941	BC558
7327	4822 130 41773	BF869
7328	4822 130 40938	BC548
7328	4822 130 41376	BF494B

Top control [F]

1024▲	4822 212 31341	Top control panel
	4822 276 13499	Switch push button

IR + LED panel [F]

1025▲	4822 212 31335	IR+LED panel
1500	4822 212 30842	IR receiver

⊣⊢

2500	4822 124 41643	100µF 20% 16V

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6500	4822 130 82029	LTL307P

Headphone panel [F]

1026▲	4822 212 31336	Headphone panel
	4822 267 41151	Headphone plug
	4822 265 31072	5 pins male (H18)

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2525	4822 124 41643	100µF 20% 16V
2526	4822 124 41643	100µF 20% 16V

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3531▲	4822 050 28209	82Ω 1% 0.6W
3532▲	4822 116 52219	330Ω 5% 0.5W
3533▲	4822 050 28209	82Ω 1% 0.6W
3534▲	4822 116 52219	330Ω 5% 0.5W

Volume control panel [F]

Various

	4822 212 31354	Vol control panel 21"
	4822 212 31357	Vol control panel 25"

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2686	4822 124 40242	1µF 20% 63V
2689	5322 122 32491	1nF 20% 100V

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3681	4822 050 22203	22k 1% 0.6W
3682	4822 116 52257	22k 5% 0.5W
3683	4822 116 52257	22k 5% 0.5W
3684▲	4822 050 21003	10k 1% 0.6W
3686▲	4822 050 21003	10k 1% 0.6W
3711	4822 116 52284	47k 5% 0.5W

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7684	4822 130 40938	BC548
7685	4822 130 40938	BC548
7686	4822 130 40938	BC548

QSS panel [G]

Various

	4822 212 31352	QSS panel 2CS DK/NICAM I
	4822 212 31338	QSS panel 2CS BG
	4822 212 31353	QSS panel NICAM BG/79
	4822 265 30351	5 pins male WTB (Q4)
	4822 267 41154	4 pins female BTB (Q3)
1000	4822 242 81635	Saw filter
1001	4822 242 80292	6.74 MHz
1001	4822 242 70485	5.74 MHz
1002	4822 242 72059	6.5 MHz
1002	4822 242 70714	5.5 MHz

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2000▲	4822 124 40433	47µF 20% 25V
2002▲	4822 124 40246	4.7µF 20% 63V
2002	4822 124 41576	2.2µF 20% 50V
2002	4822 124 41576	2.2µF 20% 50V
2003▲	4822 124 40246	4.7µF 20% 63V
2003	4822 124 41576	2.2µF 20% 50V
2003	4822 124 41576	2.2µF 20% 50V
2007	4822 121 51231	820pF 1% 400V
2008	4822 121 51231	820pF 1% 400V
2009▲	4822 124 40246	4.7µF 20% 63V
2010▲	4822 124 40246	4.7µF 20% 63V
2011▲	4822 124 40246	4.7µF 20% 63V
2012	5322 122 32491	1nF 20% 100V

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3000	4822 053 11829	82Ω 5% 2W
3001	4822 116 52226	560Ω 5% 0.5W
3002	4822 116 52226	560Ω 5% 0.5W
3003	4822 116 52224	470Ω 5% 0.5W
3004	4822 116 52224	470Ω 5% 0.5W
3005	4822 116 52224	470Ω 5% 0.5W
3013	4822 050 11002	1k 1% 0.4W
4xxx	4822 051 10008	0Ω 5% 0.25W

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5003	4822 157 71117	38.9 MHz
5004	4822 157 71115	6.5 and 6.74 MHz
5004	4822 157 71116	5.5 and 5.74 MHz
5005	4822 157 71115	6.5 and 6.74 MHz
5005	4822 157 71116	5.5 and 5.74 MHz
5007	4822 157 71111	1.8µH 10%

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7000	4822 209 63784	TDA3857/V3
7001	4822 130 40941	BC558

2CS + I/O + amplification panel [H], [I], [J]

Various

▲	4822 265 20366	1 pin 2.35 mm
	4822 264 40207	3 pins male WTB
	4822 265 30913	3 pins male WTB for A20
	4822 264 40207	3 pins male WTB
	4822 265 30378	4 pins male WTB
	4822 265 30351	5 pins male WTB
	4822 265 40421	6 pins male WTB
	4822 265 40421	6 pins male WTB
	4822 290 40295	7 pins male WTB
	4822 265 40818	8 pins male WTB
	4822 492 70788	IC spring for amplifiers
	4822 267 41149	6 pole cinch block
	4822 460 11004	Ornamental plate cinch only
	4822 460 11005	Ornamental plate cinch + SVHS
1801	4822 242 80276	10,000 000 MHz

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2101	4822 121 41856	22nF 5% 250V
2105	5322 121 42465	68nF 5% 63V
2140	4822 124 21443	2.2µF 20% 50V
2141▲	4822 124 40246	4.7µF 20% 63V
2144▲	4822 124 40246	4.7µF 20% 63V
2147	5322 124 41431	22µF 20% 35V
2148	4822 121 41856	22nF 5% 250V
2149	4822 124 40248	10µF 20% 63V
2150	5322 121 42386	100nF 5% 63V
2151	4822 126 12643	22nF 20% 50V
2152	5322 121 42386	100nF 5% 63V
2153	4822 126 12643	22nF 20% 50V
2154	5322 121 42386	100nF 5% 63V
2155	5322 121 42386	100nF 5% 63V
2156	5322 124 41431	22µF 20% 35V
2157	4822 124 40248	10µF 20% 63V
2161	4822 121 43526	47nF 5% 250V
2162	4822 121 43526	47nF 5% 250V
2163	4822 121 43526	47nF 5% 250V
2164	4822 121 43526	47nF 5% 250V
2165	4822 121 43526	47nF 5% 250V
2166	4822 121 43526	47nF 5% 250V
2167	4822 124 41407	0.47µF 20% 63V
2182	4822 124 22263	220µF 20% 25V
2183	4822 122 33306	4.7nF 5% 50V
2184	5322 121 42661	330nF 5% 63V
2185	4822 121 42408	220nF 5% 63V
2189	4822 121 51379	82nF 5% 63V
2191	4822 121 51379	82nF 5% 63V
2192	4822 121 43823	470nF 5% 50V
2193	4822 121 42408	220nF 5% 63V
2200	4822 124 40255	100µF 20% 63V
2202	5322 121 42386	100nF 5% 63V
2205	4822 121 42408	220nF 5% 63V
2206	4822 124 80854	1µF 20% 50V
2209	4822 124 40248	10µF 20% 63V
2210	4822 121 51252	470nF 5% 63V
2211	4822 126 12519	330pF 10% 50V
2215	4822 121 51252	470nF 5% 63V
2216	4822 126 12519	330pF 10% 50V
2226	5322 122 32491	1nF 20% 100V
2235	4822 124 40248	10µF 20% 63V
2241	4822 124 40255	100µF 20% 63V
2250	4822 121 51252	470nF 5% 63V
2251	4822 121 51252	470nF 5% 63V
2255	4822 124 40248	10µF 20% 63V
2265	4822 124 40242	1µF 20% 63V
2267	4822 124 40242	1µF 20% 63V
2268	4822 124 40242	1µF 20% 63V
2269	4822 124 40242	1µF 20% 63V
2270	5322 122 32491	1nF 20% 100V
2271	5322 122 32491	1nF 20% 100V
2287	4822 124 40248	10µF 20% 63V
2311	4822 124 80854	1µF 20% 50V
2315	4822 124 40248	10µF 20% 63V
2801	4822 124 41576	2.2µF 20% 50V
2802	4822 124 41576	2.2µF 20% 50V
2803	5322 122 32356	820pF 10% 100V
2805	4822 121 51372	5.6nF 2% 250V
2807	5322 121 42386	100nF 5% 63V
2808	4822 124 40248	10µF 20% 63V
2809	4822 121 41857	10nF 5% 250V
2810	4822 124 41643	100µF 20% 16V
2811	5322 121 42386	100nF 5% 63V
2813	4822 124 41576	2.2µF 20% 50V
2814	4822 124 41576	2.2µF 20% 50V
2815	4822 124 41576	2.2µF 20% 50V
2818	4822 124 41576	2.2µF 20% 50V
2820	4822 121 41857	10nF 5% 250V
2821	4822 121 41857	10nF 5% 250V
2825	4822 124 40248	10µF 20% 63V
2828	4822 124 41566	3.3µF 20% 50V

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3101	4822 116 52175	100Ω 5% 0.5W
3105	4822 116 52263	2k7 5% 0.5W
3106	4822 116 52233	10k 5% 0.5W
3108▲	4822 116 52256	2k2 5% 0.5W
3110	4822 116 52243	1k5 5% 0.5W
3112	4822 116 52285	470k 5% 0.5W
3115▲	4822 116 52283	4k7 5% 0.5W
3116▲	4822 116 52283	4k7 5% 0.5W
3120	4822 116 52263	2k7 5% 0.5W
3121▲	4822 116 52256	2k2 5% 0.5W
3124	4822 116 52233	10k 5% 0.5W
3126	4822 116 52303	8k2 5% 0.5W
3130	4822 116 52233	10k 5% 0.5W
3135	4822 116 52243	1k5 5% 0.5W
3136	4822 116 52257	22k 5% 0.5W
3137	4822 116 52284	47k 5% 0.5W
3140▲	4822 116 52283	4k7 5% 0.5W
3141	4822 116 52296	6k8 5% 0.5W
3143	4822 116 52263	2k7 5% 0.5W
3147	4822 116 52263	2k7 5% 0.5W
3151▲	4822 116 52256	2k2 5% 0.5W
3152▲	4822 116 52256	2k2 5% 0.5W
3153	4822 116 52207	1k2 5% 0.5W
3154	4822 116 52207	1k2 5% 0.5W
3155	4822 116 52277	39k 5% 0.5W
3156	4822 050 11002	1k 1% 0.4W
3157	4822 116 52226	560Ω 5% 0.5W
3158	4822 116 52285	470k 5% 0.5W
3159	4822 116 52285	470k 5% 0.5W
3160▲	4822 116 52269	3k3 5% 0.5W
3161	4822 116 52257	22k 5% 0.5W
3162▲	4822 116 52269	3k3 5% 0.5W
3163	4822 116 52257	22k 5% 0.5W
3164	4822 050 11002	1k 1% 0.4W
3165▲	4822 116 52283	4k7 5% 0.5W
3167	4822 116 52257	22k 5% 0.5W
3168	4822 116 52257	22k 5% 0.5W
3169▲	4822 116 52193	39Ω 5% 0.5W
3170▲	4822 116 52283	4k7 5% 0.5W
3171▲	4822 116 52283	4k7 5% 0.5W
3172	4822 116 52292	560k 5% 0.5W
3173	4822 116 52292	560k 5% 0.5W
3174	4822 116 52265	270k 5% 0.5W
3175	4822 116 52249	1k8 5% 0.5W
3176	4822 116 52249	1k8 5% 0.5W
3177▲	4822 116 52269	3k3 5% 0.5W
3178	4822 050 11002	1k 1% 0.4W
3179	4822 116 52233	10k 5% 0.5W
3180	4822 116 52271	33k 5% 0.5W
3185	4822 050 26808	6Ω8 1% 0.6W
3186	4822 050 26808	6Ω8 1% 0.6W
3187	4822 050 26808	6Ω8 1% 0.6W
3189	4822 116 52304	82k 5% 0.5W
3190	4822 116 52276	3k9 5% 0.5W
3191	4822 116 52245	150k 5% 0.5W
3192	4822 116 52289	5k6 5% 0.5W
3193	4822 116 52289	5k6 5% 0.5W
3194▲	4822 116 52283	4k7 5% 0.5W
3195	4822 116 52213	180Ω 5% 0.5W
3199▲	4822 116 52269	3k3 5% 0.5W
3201	4822 116 52201	75Ω 5% 0.5W
3202	4822 050 11002	1k 1% 0.4W
3203	4822 116 52175	100Ω 5% 0.5W
3204	4822 050 11002	1k 1% 0.4W
3205	4822 050 11002	1k 1% 0.4W
3206	4822 116 52175	100Ω 5% 0.5W
3207	4822 116 52285	470k 5% 0.5W
3208	4822 116 52201	75Ω 5% 0.5W
3209▲	4822 116 52256	2k2 5% 0.5W
3210	4822 116 52201	75Ω 5% 0.5W
3211	4822 116 52258	220k 5% 0.5W
3212	4822 116 52175	100Ω 5% 0.5W
3213▲	4822 050 22702	2k7 1% 0.6W
3214	4822 116 52175	100Ω 5% 0.5W
3215	4822 116 52258	220k 5% 0.5W
3216▲	4822 050 22702	2k7 1% 0.6W
3220	4822 116 52284	47k 5% 0.5W
3229	4822 116 52234	100k 5% 0.5W
3231	4822 116 52234	100k 5% 0.5W
3233	4822 116 52233	10k 5% 0.5W
3235	4822 116 52233	10k 5% 0.5W
3236	4822 116 52234	100k 5% 0.5W
3238	4822 116 52234	100k 5% 0.5W
3239▲	4822 116 52283	4k7 5% 0.5W
3242	4822 116 52276	3k9 5% 0.5W
3244	4822 116 52233	10k 5% 0.5W
3245▲	4822 116 52283	4k7 5% 0.5W
3246	4822 116 52284	47k 5% 0.5W
3247	4822 116 52233	10k 5% 0.5W
3248	4822 050 11002	1k 1% 0.4W
3249	4822 116 52207	1k2 5% 0.5W
3250▲	4822 116 52283	4k7 5% 0.5W
3251	4822 116 52257	22k 5% 0.5W
3252	4822 116 52289	5k6 5% 0.5W
3253	4822 116 52207	1k2 5% 0.5W
3254	4822 116 52289	5k6 5% 0.5W
3255	4822 116 52207	1k2 5% 0.5W
3256	4822 116 52271	33k 5% 0.5W
3257	4822 116 52284	47k 5% 0.5W
3258	4822 116 52289	5k6 5% 0.5W
3260	4822 116 52211	150Ω 5% 0.5W
3262	4822 116 52271	33k 5% 0.5W
3263	4822 116 52284	47k 5% 0.5W
3264	4822 116 52289	5k6 5% 0.5W
3265	4822 116 52211	150Ω 5% 0.5W
3266▲	4822 116 52219	330Ω 5% 0.5W
3267▲	4822 116 52219	330Ω 5% 0.5W
3268▲	4822 050 21501	150Ω 1% 0.6W
3269▲	4822 050 21501	150Ω 1% 0.6W
3270	4822 116 52234	100k 5% 0.5W
3271▲	4822 116 52283	4k7 5% 0.5W
3273	4822 116 52257	22k 5% 0.5W
3275	4822 050 11002	1k 1% 0.4W
3276	4822 116 52226	560Ω 5% 0.5W
3277	4822 050 11002	1k 1% 0.4W
3278	4822 116 52226	560Ω 5% 0.5W
3283	4822 116 52296	6k8 5% 0.5W
3285	4822 116 52213	180Ω 5% 0.5W
3286▲	4822 116 52199	68Ω 5% 0.5W
3287▲	4822 116 52283	4k7 5% 0.5W
3289▲	4822 116 52283	4k7 5% 0.5W
3291▲	4822 116 52283	4k7 5% 0.5W
3294	4822 116 52291	56k 5% 0.5W
3295	4822 116 52271	33k 5% 0.5W
3296	4822 116 52291	56k 5% 0.5W
3297	4822 116 52271	33k 5% 0.5W
3300	4822 116 52238	12k 5% 0.5W
3311	4822 116 52233	10k 5% 0.5W
3315	4822 116 52175	100Ω 5% 0.5W
3316	4822 116 52226	560Ω 5% 0.5W
3320▲	4822 116 52283	4k7 5% 0.5W
3321	4822 116 52257	22k 5% 0.5W
3325	4822 116 52257	22k 5% 0.5W
3801	4822 100 11319	4k7 30% LIN 0.1W
3803	4822 116 52243	1k5 5% 0.5W
3804	4822 050 11002	1k 1% 0.4W
3804	4822 116 52243	1k5 5% 0.5W
3807	4822 116 52289	5k6 5% 0.5W
3808▲	4822 052 10478	4Ω7 5% 0.33W
3810	4822 116 52175	100Ω 5% 0.5W
3811	4822 116 52175	100Ω 5% 0.5W
3820	4822 116 52228	680Ω 5% 0.5W
3821	4822 050 11002	1k 1% 0.4W
3822	4822 116 52207	1k2 5% 0.5W
3823	4822 116 52291	56k 5% 0.5W
3825	4822 116 52271	33k 5% 0.5W
3826	4822 116 52291	56k 5% 0.5W
3827	4822 050 11002	1k 1% 0.4W
3828	4822 116 52291	56k 5% 0.5W
3829▲	4822 116 52256	2k2 5% 0.5W
4xxx	4822 051 10008	0Ω 5% 0.25W

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5200	4822 157 50964	100µH
5201	4822 157 50964	100µH
5801	4822 157 70467	1500µH

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6101	4822 130 34488	BZX79-C11
6140	4822 130 34278	BZX79-C6V8
6190▲	4822 130 30621	1N4148
6191	4822 130 34174	BZX79-C4V7
6192▲	4822 130 30621	1N4148
6193	4822 130 34174	BZX79-C4V7
6194▲	4822 130 30621	1N4148
6195▲	4822 130 30621	1N4148
6196▲	4822 130 30621	1N4148
6197▲	4822 130 30621	1N4148
6198	4822 130 34167	BZX79-C6V2
6201	4822 130 34382	BZX79-C8V2
6202	4822 130 34382	BZX79-C8V2
6203	4822 130 34382	BZX79-C8V2
6204	4822 130 34382	BZX79-C8V2
6205	4822 130 34382	BZX79-C8V2
6206	4822 130 34382	BZX79-C8V2
6207	4822 130 34382	BZX79-C8V2
6208	4822 130 34382	BZX79-C8V2
6222	4822 130 34382	BZX79-C8V2
6275▲	4822 130 30621	1N4148
6276▲	4822 130 30621	1N4148
6295	4822 130 34174	BZX79-C4V7
6296▲	4822 130 30621	1N4148
6298▲	4822 130 30621	1N4148
6823▲	4822 130 30621	1N4148
6828	5322 130 31504	BZX79-C3V3

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7105	4822 130 40938	BC548
7106	4822 130 40941	BC558
7110	4822 130 40938	BC548
7115	4822 130 40941	BC558
7120	4822 130 40938	BC548
7125	4822 130 40941	BC558
7130	4822 130 40941	BC558
7135	4822 130 40938	BC548
7140	4822 130 40938	BC548
7150	4822 130 40938	BC548
7151	4822 130 40938	BC548
7152	4822 130 40938	BC548
7190	4822 209 32531	TDA7056A/N2
7191	4822 209 32531	TDA7056A/N2
7192	4822 209 32531	TDA7056A/N2
7193	4822 130 63427	BD534FI
7194	4822 130 40938	BC548
7195	4822 209 70672	LM358N
7205	4822 130 40938	BC548
7208	4822 130 40938	BC548
7219▲	4822 130 44197	BC558B
7240	5322 209 10576	HEF4053BP
7250	4822 130 40938	BC548
7260	4822 130 40938	BC548
7261	4822 130 40941	BC558
7265	4822 130 40938	BC548
7266	4822 130 40941	BC558
7270	5322 209 10576	HEF4053BP
7271	4822 130 40938	BC548
7275	4822 130 40938	BC548
7280	4822 130 40941	BC558
7285	4822 130 40938	BC548
7291	4822 130 40941	BC558
7315	4822 130 40938	BC548
7320	4822 130 40938	BC548
7325	4822 130 40941	BC558
7800	4822 209 32863	TDA9840/V1
7820	4822 130 40938	BC548
7825	4822 130 40941	BC558
7828	4822 130 40941	BC558
7829	4822 130 40938	BC548

NICAM panel [K]

Various

	4822 212 31348	NICAM I panel
	4822 212 31339	NICAM BG panel
	4822 212 31355	NICAM BG/79 panel
	4822 290 40295	7 pins male WTB
	4822 265 40818	8 pins male WTB
1018	4822 156 11158	Nyquist NICAM I
1018	4822 156 11157	Nyquist NICAM BG
1028	4822 242 81188	13.104MHz
1028	4822 242 81187	11.700MHz
1052	4822 242 81527	17.472MHz

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2007	4822 122 31746	1nF 2% 63V
2008	4822 122 31981	33nF +-0.5pF 50V
2011	4822 122 31981	33nF +-0.5pF 50V
2015	4822 122 32507	6.8pF 5% 50V
2018	4822 122 31746	1nF 2% 63V
2019	4822 122 33496	100nF 10% 63V
2020	4822 122 31797	22nF 10% 63V
2020▲	4822 122 32442	10nF 50V
2020▲	4822 122 32442	10nF 50V
2021	4822 122 33496	100nF 10% 63V
2022▲	4822 122 32442	10nF 50V
2024	4822 122 31768	180pF 2% 63V
2025	4822 122 31768	180pF 2% 63V
2028	5322 122 31842	330pF 2% 63V
2029	4822 122 32597	6.8nF 10% 63V
2030	4822 122 31746	1nF 2% 63V
2033	4822 122 31767	150pF 2% 63V
2034	4822 122 31767	150pF 2% 63V
2038	4822 122 31766	120pF 2% 63V
2040▲	4822 122 32442	10nF 50V
2041	5322 122 32838	82nF 10% 63V
2042▲	4822 122 32442	10nF 50V
2043▲	4822 124 40433	47uF 20% 25V
2044	4822 122 32891	68nF 10% 63V
2045	4822 121 42408	220nF 5% 63V
2046	4822 122 33496	100nF 10% 63V
2049	4822 122 31746	1nF 2% 63V
2050	4822 122 31746	1nF 2% 63V
2052	4822 122 31767	150pF 2% 63V
2056▲	4822 124 40433	47µF 20% 25V
2057	4822 122 32541	27nF 10% 63V
2057	4822 122 33608	39nF 10% 63V
2058	5322 122 31648	12nF 10% 50V
2058	4822 122 31759	18nF 10%
2060	4822 122 33498	2.7nF 10% 63V
2061	4822 122 32999	2.2nF 5%
2061	4822 122 33498	2.7nF 10% 63V
2062	4822 122 31773	560pF 2% 63V
2064	4822 122 31797	22nF 10% 63V
2065	4822 121 51319	1µF 10% 63V
2068	4822 122 32541	27nF 10% 63V
2068	4822 122 33608	39nF 10% 63V
2069	5322 122 31648	12nF 10% 50V
2069	4822 122 31759	18nF 10%
2070	4822 122 32999	2.2nF 5%
2070	4822 122 33498	2.7nF 10% 63V
2071	4822 122 33498	2.7nF 10% 63V
2072	4822 122 31773	560pF 2% 63V
2075	4822 122 31797	22nF 10% 63V
2076	4822 121 51319	1µF 10% 63V
2077	4822 124 40248	10µF 20% 63V
2078	4822 124 40248	10µF 20% 63V
2080	4822 124 40248	10µF 20% 63V
2092	4822 122 33496	100nF 10% 63V
2093	4822 124 40198	470µF 20% 16V
2096	4822 122 33496	100nF 10% 63V
2097▲	4822 124 41525	100µF 20% 25V

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3006	4822 116 52233	10k 5% 0.5W
3007	4822 051 10271	270Ω 2% 0.25W
3008	4822 051 10432	4k3 2% 0.25W
3009	4822 051 10271	270Ω 2% 0.25W
3011	4822 051 10829	82Ω 2% 0.25W
3012	4822 116 52233	10k 5% 0.5W
3013	4822 051 10102	1k 2% 0.25W
3015	4822 051 10561	560Ω 2% 0.25W
3018	4822 116 52249	1k8 5% 0.5W
3020	4822 051 10182	1k8 2% 0.25W
3024	4822 051 10332	3k3 2% 0.25W
3025	4822 051 10332	3k3 2% 0.25W
3028	4822 051 10104	100k 2% 0.25W
3029	4822 051 10823	82k 2% 0.25W
3030	4822 051 10159	15Ω 2% 0.25W
3033	4822 051 10223	22k 2% 0.25W
3034	4822 051 10223	22k 2% 0.25W
3035	4822 116 52276	3k9 5% 0.5W
3040	4822 116 52175	100Ω 5% 0.5W
3041	4822 116 52175	100Ω 5% 0.5W
3042	4822 051 10223	22k 2% 0.25W
3043▲	4822 051 10103	10k 2% 0.25W
3044▲	4822 051 10103	10k 2% 0.25W
3045	4822 051 10824	820k 2% 0.25W
3047	4822 051 10273	27k 2% 0.25W
3050	4822 116 52271	33k 5% 0.5W
3051▲	4822 051 10103	10k 2% 0.25W
3052	4822 051 10104	100k 2% 0.25W
3053	4822 116 52234	100k 5% 0.5W
3054	4822 051 10105	1M 5% 0.25W
3055	4822 051 10102	1k 2% 0.25W
3057	4822 051 10152	1k5 2% 0.25W
3057	4822 051 10102	1k 2% 0.25W
3058	4822 051 10822	8k2 2% 0.25W
3058	4822 051 10153	15k 2% 0.25W
3058▲	4822 051 10103	10k 2% 0.25W
3059▲	4822 116 52283	4k7 5% 0.5W
3060▲	4822 051 10472	4k7 2% 0.25W
3061	4822 051 10153	15k 2% 0.25W
3062	4822 051 10153	15k 2% 0.25W
3061	4822 051 10123	12k 2% 0.25W
3062	4822 051 10123	12k 2% 0.25W
3067▲	4822 051 10472	4k7 2% 0.25W
3067	4822 051 10562	5k6 2% 0.25W
3068	4822 051 10152	1k5 2% 0.25W
3068	4822 051 10102	1k 2% 0.25W
3069	4822 051 10822	8k2 2% 0.25W
3069	4822 051 10153	15k 2% 0.25W
3069▲	4822 051 10103	10k 2% 0.25W
3070▲	4822 116 52283	4k7 5% 0.5W
3071▲	4822 051 10472	4k7 2% 0.25W
3072	4822 116 52233	10k 5% 0.5W
3073▲	4822 051 10103	10k 2% 0.25W
3074	4822 051 10104	100k 2% 0.25W
3075	4822 116 52234	100k 5% 0.5W
3076	4822 116 52234	100k 5% 0.5W
3077	4822 116 52234	100k 5% 0.5W
3078	4822 051 10104	100k 2% 0.25W
3080	4822 051 10511	510Ω 2% 0.25W
3081	4822 116 52304	82k 5% 0.5W
3082	4822 116 52233	10k 5% 0.5W
3083▲	4822 051 10103	10k 2% 0.25W
3084	4822 116 52284	47k 5% 0.5W
3085▲	4822 051 10103	10k 2% 0.25W
3086▲	4822 051 10472	4k7 2% 0.25W
3092	4822 116 52222	390Ω 5% 0.5W
3093	4822 051 10479	47Ω 2% 0.25W
4xxx	4822 051 10008	0Ω 5% 0.25W

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5001	4822 157 51157	3.3µH
5020	4822 157 51157	3.3µH
5024	4822 157 50975	1 mH
5025	4822 157 50975	1 mH
5042	4822 157 51157	3.3µH
5045	4822 157 51157	3.3µH
5050	4822 157 51157	3.3µH
5063	4822 157 51157	3.3µH
5092	4822 157 51157	3.3µH

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6028	5322 130 34953	BB405B
6043	4822 130 80446	LL4148
6045	4822 130 80446	LL4148

6049	5322 130 31684	BB809
6080	4822 130 80446	LL4148
6081	4822 130 80446	LL4148
6082	4822 130 80446	LL4148
6083	4822 130 80446	LL4148
6096	4822 130 80954	LLZ-C5V6

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7007	5322 130 42136	BC848C
7013	5322 130 42136	BC848C
7015	4822 130 60514	BC859B
7025	4822 209 30909	TDA8732/C1
7040	5322 130 42136	BC848C
7045▲	4822 209 30914	SAA7280P/M3
7050	5322 130 42136	BC848C
7055	4822 209 73236	TDA1543/N2
7060▲	4822 209 83163	LM833N
7070▲	4822 209 83163	LM833N
7075	5322 209 10576	HEF4053BP
7080	4822 130 42513	BC858C
7081	5322 130 42136	BC848C
7093	4822 130 63558	BD533

TXT interface panel [M]

Various

	4822 212 31351	TXT interface panel
	4822 264 40207	3 pins male WTB
	4822 265 30378	4 pins male WTB
	4822 267 50591	6 pins male BTB (AU)
	4822 264 50148	8 pins male BTB (AU)

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2900	4822 124 41585	2.2µF 20% 50V

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3900	4822 116 52244	15k 5% 0.5W
3901▲	4822 116 52283	4k7 5% 0.5W
3902	4822 116 52207	1k2 5% 0.5W
3903	4822 116 52229	750Ω 5% 0.5W
3904	4822 116 52231	820Ω 5% 0.5W
3905	4822 116 52207	1k2 5% 0.5W
3906	4822 117 10826	22Ω resonator

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6900▲	4822 130 30621	1N4148
6901▲	4822 130 30621	1N4148
6905	4822 130 34382	BZX79-C8V2

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7900	4822 130 40938	BC548
7901	4822 130 40941	BC558

TXT panel [N]

Various

	4822 212 31349	ECCT TXT FLOF ANZ
	4822 212 31358	ECCT TXT EAST EU ANZ
▲	4822 265 40469	6 pins female side BTB (AU)
	4822 265 40471	8 pins female side BTB (AU)
1801	4822 242 73552	13,875 000 MHz
1802	4822 242 71508	6.00 MHz

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2793	4822 122 32542	47nF 10% 63V
2794	4822 122 31769	18pF 2% 63V
2795	4822 122 31769	18pF 2% 63V
2796	4822 122 31769	18pF 2% 63V
2797	4822 122 32083	8.2pF 5% 50V
2798	4822 122 33496	100nF 10% 63V
2800	4822 124 41584	100µF 20% 10V
2801▲	4822 122 32442	10nF 50V
2802	4822 122 31972	39pF 2% 63V
2803	4822 122 31972	39pF 2% 63V
2804	4822 122 31766	120pF 2% 63V
2805	4822 122 31766	120pF 2% 63V
2810	4822 122 33496	100nF 10% 63V
2811	4822 122 33496	100nF 10% 63V
2812	4822 122 33496	100nF 10% 63V
2813▲	4822 122 32442	10nF 50V
2814	4822 122 31773	560pF 2% 63V
2815	4822 122 33496	100nF 10% 63V
2816	4822 122 31825	27pF 2% 63V
2817	4822 122 32504	15pF 2% 63V
2818	5322 122 31647	1nF 10% 63V
2819	4822 122 31727	470pF 2% 63V
2820	4822 122 31797	22nF 10% 63V
2821	4822 122 32142	270pF 2% 63V
2822	4822 122 31765	100pF 2% 63V
2823	4822 122 31965	220pF 2% 63V
2824	4822 122 32891	68nF 10% 63V
2825▲	4822 124 41525	100µF 20% 25V
2826	4822 122 32504	15pF 2% 63V
2827	4822 122 32542	47nF 10% 63V
2828	4822 122 32542	47nF 10% 63V
2829▲	4822 124 40433	47µF 20% 25V
2830	4822 122 32542	47nF 10% 63V
2833	4822 124 41576	2.2µF 20% 50V
2845	4822 124 41584	100µF 20% 10V
2846▲	4822 124 40196	220µF 20% 16V
2849	4822 124 21212	15µF 20% 40V

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3795	4822 051 10392	3k9 2% 0.25W
3796	4822 051 51201	120Ω 1% 0.125W
3797	4822 116 52176	10Ω 5% 0.5W
3798	4822 051 51201	120Ω 1% 0.125W
3800▲	4822 051 10103	10k 2% 0.25W
3801	4822 051 10105	1M 5% 0.25W
3802	4822 051 10101	100Ω 2% 0.25W
3803	4822 051 10101	100Ω 2% 0.25W
3804	4822 051 10101	100Ω 2% 0.25W
3805	4822 051 10122	1k2 2% 0.25W
3807	4822 051 10622	6k2 2% 0.25W
3808▲	4822 051 10103	10k 2% 0.25W
3809	4822 051 10132	1k3 2% 0.25W
3810	4822 051 10333	33k 2% 0.25W
3811	4822 051 10223	22k 2% 0.25W
3812	4822 051 10332	3k3 2% 0.25W
3813	4822 051 10102	1k 2% 0.25W
3814	4822 050 11002	1k 1% 0.4W
3815	4822 051 10152	1k5 2% 0.25W
3816	4822 051 10683	68k 2% 0.25W
3817	4822 051 10122	1k2 2% 0.25W
3818	4822 051 10122	1k2 2% 0.25W
3819	4822 051 10122	1k2 2% 0.25W
3820	4822 051 10122	1k2 2% 0.25W
3821	4822 051 10122	1k2 2% 0.25W
3822	4822 051 10122	1k2 2% 0.25W
3823	4822 051 10122	1k2 2% 0.25W
3824	4822 051 10332	3k3 2% 0.25W
3825	4822 051 10332	3k3 2% 0.25W
3826▲	4822 052 11108	1Ω 5% 0.5W
3827	4822 051 10332	3k3 2% 0.25W
3828	4822 051 10829	82Ω 2% 0.25W
3839	4822 051 10122	1k2 2% 0.25W
3840	4822 051 10122	1k2 2% 0.25W
3841	4822 051 10122	1k2 2% 0.25W
3842	4822 051 10122	1k2 2% 0.25W
3843	4822 051 10122	1k2 2% 0.25W
3845▲	4822 052 10689	68Ω 5% 0.33W
3846▲	4822 052 10689	68Ω 5% 0.33W
3847	4822 051 10829	82Ω 2% 0.25W
3848	4822 051 10181	180Ω 2% 0.25W
3849	4822 051 10102	1k 2% 0.25W
3850	4822 051 20222	2k2 5% 0.1W
3852	4822 051 20222	2k2 5% 0.1W
3999	4822 051 10182	1k8 2% 0.25W
4xxx	4822 051 10008	0Ω 5% 0.25W

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5800	4822 156 20966	47 µH
5801	4822 157 52849	COIL
5803	4822 157 52825	COIL 60 µH
5814	4822 157 53608	10µH
5816	4822 157 52224	15µH
5847	4822 157 51157	3.3µH

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6809	4822 130 80446	LL4148
6810	4822 130 80446	LL4148
6811	4822 130 80446	LL4148
6812	4822 130 80446	LL4148
6813	4822 130 81223	LLZ-C2V4
6814	4822 130 80446	LL4148
6847	4822 130 42489	BYD33G
6848	4822 130 80905	LLZ-F5V1

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7800	4822 209 33034	PCF84C81AP/098/F2
7800	4822 209 30281	PCF84C81A/097
7801	4822 130 61207	BC848
7802	4822 130 61207	BC848
7803▲	5322 130 41982	BC848B
7810	4822 209 72681	MSM5165AL-12RS
7811▲	5322 130 41982	BC848B
7812	5322 130 60159	BC846B
7820	4822 209 30556	SAA5243P/E/M3/H
7820	4822 209 63974	SAA5243P/H
7830	4822 209 32201	SAA5231/V8
7846	4822 130 63558	BD533
7849	5322 130 42012	BC858

Service
Service
Service

Anubis-S

BB 94.01

Service Information

1. Exit of the Service Default Mode:

In service manual Anubis S BB 4822 727 20262 in chapter 8 paragraph 3.3 "Exit of the Service Default Mode" the text should be adapted as follows:
For both software number A and 12 via standby (so not via mains switch off)

2. Software number 12

In service manual Anubis S BB 4822 727 20262 in chapter 8 software number 12 for sets equipped with a PLL tuning system (e.g. for -/71/97) is not published.

* **Parts involved for PLL tuning:**

1000	4822 210 10561	PLL tuner UV936E/F
1015	4822 242 73792	SAW filter OFWM1963M
3600	4822 116 90878	8k2 X 10
3601	4822 116 90879	8k2 X 8
3602	4822 116 90881	8k2 X 6
7225	4822 209 33479	TDA8361E/N3
7600	4822 209 33413	P87C055BB-PNB software number 12 (available approx. week 9420)

* **Functioning of the Service Default Mode and Service Mode of software number 12**
The functioning of the Service Default Mode and the Service Mode is exactly the same as for software number A (as described in the service manual 4822 727 20262 in paragraph 4.2) except for the option settings and the hotel mode.

* **Option settings software number 12**

- Option setting table for software number 12; see table 8.4
- Checksum; Add the 2 data values at the addresses 252 and 253. If necessary subtract 256 to get a checksum data under 256. This checksum data should be keyed in at the checksum address 254. If the checksum is not correct the set will use default setting.
- Changing the options in the service mode of software number 12 has to be done with the "CURSOR" and "STORE" buttons and not with the "CONTROL -/+", "CHANNEL -/+" and "0-9" buttons:

* CURSOR LEFT: Select the ADDRESS area
* CURSOR RIGHT: Select the DATA area
* CURSOR UP: Increment of the value in the selected area
* CURSOR DOWN: Decrement of the value in the selected area
* STORE: After every ADR and/or DATA change press the "STORE" button to store the changed values.

Only after switching off and on again the set with the mains switch the changed values will be used !!!

- Both software number A and 12 automatically unprotect the EEPROM at entering the Service Mode and protect the EEPROM again at exiting the Service Mode.
This is done via an automatic change of the data at address 255.
For this reason the data at this address 255 should **not** be adapted in the Service Mode.

* **Hotel mode for software number 12**
Hotel mode for software number 12 is activated and deactivated in the same way as for software number A. However software number 12 has only 1 hotel mode with the following features:

- Entering the INSTALL menu is not possible
- Store PP is not possible
- Maximum volume level is limited to the value present at the moment the hotel mode was activated.

3. Spare parts list:

In service manual Anubis S BB 4822 727 20262
in chapter 10 the spare parts list for the Multisound panel, the BTSC panel and the turkish TXT decoder are not published. Also this information is published in this service information.
For -/62 Turkey the following codenumbers are also valid:

*	4822 267 51058	Scart plug (for -/62)
*	4822 454 12936	Ornamental plate for scart (for -/62)

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PHILIPS

OPTION SETTING TABLE FOR SOFTWARE NUMBER 12

Address	Option A	Value	Option B	Value
252	BTSC panel not present	0	BTSC panel present	128
	Mono set	0	AV stereo playback	64
	Not used			0
	AV selection not allowed	0	AV selection allowed	16
	No trinorma set	0	Trinorma set	8
	Not used			0
	Not used			0
	Not used			0
253	No subwoofer present	0	Subwoofer present	128
	Keys local control	0	Keys local control	64
	Protection bit can not be saved in EEPROM	0	Protection bit is saved in EEPROM (so after protection occurred, the set remains in protection until entering the Service Mode)	32
	Spatial feature is not present	0	Spatial feature is present	16
	Multi voltage is not present	0	Multi voltage is present	8
	Sharpness feature is not present	0	Sharpness feature is present	4
	Hotel mode not allowed	0	Hotel mode allowed	2
	HUE control disabled	0	HUE control enabled, for NTSC only sets	1
254	Checksum Add data on address 252 and 253 and then (if necessary) subtract 256 until the data has a value under 256. If checksum is not OK the set will use default setting.			

Table 8.4

Multi sound panel [D]

Various

	4822 212 31346	Multisound panel
	4822 265 20366	1 pin header 2.35 mm
	4822 265 40421	6 pins male WTB
	4822 165 30378	4 pins male WTB
	4822 266 30276	4 pins female BTB (AU)
	4822 265 40471	8 pins female BTB (AU)
1101	4822 242 72547	5.5MHz
1102	4822 242 71713	6.0MHz
1103	4822 242 72057	6.5MHz
1104	4822 242 71725	4.5MHz

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2105	4822 122 33293	100pF 5% 50V
2106	5322 122 32491	1nF 20% 100V
2107	4822 124 40242	1µF 20% 63V
2108	4822 121 43714	820nF 5% 50V
2108	4822 121 51436	820nF 10% 63V
2111	4822 121 51231	820pF 1% 400V
2111	4822 126 13173	820pF 5% DC 50V
2112	4822 126 12788	33pF 5% 50V
2114	5322 122 32491	1nF 20% 100V
2115	5322 122 32491	1nF 20% 100V
2116	5322 122 32491	1nF 20% 100V
2117	5322 122 32491	1nF 20% 100V
2125	4822 126 12643	22nF 20% 50V
2132	4822 124 40248	10µF 20% 63V
2133	4822 126 12643	22nF 20% 50V
2140	5322 122 32311	470pF 10% 100V
2154	4822 126 12643	22nF 20% 50V
2160	5322 122 32491	1nF 20% 100V

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3101	4822 116 52269	3k3 5% 0.5W
3102	4822 116 52289	5k6 5% 0.5W
3103	4822 116 52289	5k6 5% 0.5W
3104	4822 116 52289	5k6 5% 0.5W
3105	4822 116 52289	5k6 5% 0.5W
3106	4822 116 52244	15k 5% 0.5W
3107	4822 116 52226	560Ω 5% 0.5W
3108	4822 116 52225	510Ω 5% 0.5W
3109	4822 116 52245	150k 5% 0.5W
3110	4822 116 52245	150k 5% 0.5W
3111	4822 116 52273	3k6 5% 0.5W
3112	4822 052 10129	12Ω 5% 0.33W
3114	4822 116 52233	10k 5% 0.5W
3115	4822 116 52256	2k2 5% 0.5W
3116	4822 116 52283	4k7 5% 0.5W
3117	4822 116 52226	560Ω 5% 0.5W
3118	4822 116 52292	560k 5% 0.5W
3120	4822 116 52269	3k3 5% 0.5W
3150	4822 116 52215	220Ω 5% 0.5W
3151	4822 116 52224	470Ω 5% 0.5W
3152	4822 116 52219	330Ω 5% 0.5W
3152	4822 116 52224	470Ω 5% 0.5W
3153	4822 116 52219	330Ω 5% 0.5W
3154	4822 116 52226	560Ω 5% 0.5W
3155	4822 116 52291	56k 5% 0.5W
3156	4822 116 52244	15k 5% 0.5W
3160	4822 116 52245	150k 5% 0.5W

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5105	4822 157 71039	120µH
5106	4822 157 71113	10µH 10%

-▶|-

6101	4822 130 30621	1N4148
6102	4822 130 30621	1N4148
6103	4822 130 30621	1N4148
6104	4822 130 30621	1N4148
6106	5322 130 80617	BAT81
6107	5322 130 80617	BAT81
6124	4822 130 34233	BZX79-C5V1
6132	4822 130 34379	BZX79-C27
6133	4822 130 34379	BZX79-C27

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7111	4822 130 40937	BC548B
7112	4822 130 40938	BC548
7113	4822 130 40938	BC548
7114	4822 130 40941	BC558
7115	4822 130 40937	BC548B
7120	4822 130 40938	BC548
7132	5322 209 10421	HEF4094BP
7133	4822 130 44196	BC548C

BTSC panel [L]

Various

	4822 212 31454	BTSC panel
	4822 290 40295	7 pins male WTB
	4822 265 40818	8 pins male WTB

-||-

2801	4822 124 40248	10µF 20% 63V
2802	4822 121 51252	470nF 5% 63V
2803	5322 121 42386	100nF 5% 63V
2804	4822 124 40248	10µF 20% 63V
2805	4822 121 42408	220nF 5% 63V
2806	4822 124 40242	1µF 20% 63V
2807	4822 124 40242	1µF 20% 63V
2808	4822 121 43526	47nF 5% 250V
2809	4822 124 40248	10µF 20% 63V
2810	4822 124 40248	10µF 20% 63V
2811	4822 124 40246	4.7µF 20% 63V
2812	4822 124 40246	4.7µF 20% 63V
2815	4822 121 42408	220nF 5% 63V
2816	4822 124 40242	1µF 20% 63V
2817	4822 124 40248	10µF 20% 63V
2818	4822 124 41643	100µF 20% 16V
2819	4822 121 41856	22nF 5% 250V
2820	4822 124 41643	100µF 20% 16V

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3801	4822 116 52269	3k3 5% 0.5W
3803	4822 053 12569	56Ω 5% 3W
3804	4822 100 11213	22k 30% lin 0.1W
3805	4822 050 21104	110k 1% 0.6W
3806	4822 100 11392	47k 30% lin 0.1W
3807	4822 100 11213	22k 30% lin 0.1W
3808	4822 100 11213	22k 30% lin 0.1W
3809	4822 100 11213	22k 30% lin 0.1W
3810	4822 100 11213	22k 30% lin 0.1W
3812	4822 050 21802	1k8 1% 0.6W
3813	4822 050 21301	130Ω 1% 0.6W
3814	4822 116 52256	2k2 5% 0.5W
3815	4822 116 52226	560Ω 5% 0.5W
3818	4822 050 11002	1k 1% 0.4W
3824	4822 116 52233	10k 5% 0.5W
3825	4822 116 52233	10k 5% 0.5W
3826	4822 050 28202	8k2 1% 0.6W
3827	4822 050 21601	160Ω 1% 0.6W
3828	4822 100 20166	10k 30% lin 0.1W
3829	4822 116 52249	1k8 5% 0.5W
3830	4822 116 52257	22k 5% 0.5W
3876	4822 116 52175	100Ω 5% 0.5W
3877	4822 116 52175	100Ω 5% 0.5W

-▶|-

6801	4822 130 34233	BZX79-C5V1
6802	4822 130 30621	1N4148
6803	4822 130 30621	1N4148
6804	4822 130 31981	BZX79-C3V9

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7801	4822 209 30946	TDA3833/V3
7814	4822 130 40948	BC548A

TXT panel [N]

Various

	4822 212 31455	ECCT TXT panel Turkey

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7800	4822 209 30279	PCF8481AP/096/ F2 for /62
7820	4822 209 63975	SAA5243P/T for /62

Colour television

Service
Service
Service

Anubis S
BB&CC

94.02

Service Information

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Incredible stereo

In this service information the Incredible stereo panel and all other related modifications are published (the incredible stereo panel is the same for both Anubis S BB and CC).

In the Anubis S BB (english 4822 727 20262, spanish 4822 727 20281; 21-25" Anubis S stereo) the incredible stereo feature will be added and indicated with the typenumbers -/xxT (for the future 29" this will be -/xxR). For the Anubis S BB the slightly adapted Multisound panel (diagram D) and the slightly adapted 2CS + I/O + Amplification panel (diagram H and a part of diagram J) are published in this service information.

In the Anubis S CC (english 4822 727 20288, spanish 4822 727 20289; 14-20-21" Anubis S with Interface + Amplifier panel) this incredible stereo feature can also be introduced in future. For the Anubis S CC the Interfacing + Amplification panel (diagram I) and the Multisound panel (diagram D) are already prepared for incredible stereo, so they are not published in this service information.

1. Software number A+

Anubis S BB and CC sets with production code SV03 are foreseen with a µC with software number "A+" (sets with production code SV02 and thus with a µC with software number "A" will remain in production in parallel).
Microprocessor IC7600 (diagram C) software number "A+" version 0.9 (ANUBIS-SAPHV 0.9 in the Service Mode and CTV110SAPHV 0.9 printed on the µC):
PCA84C844P/163; 4822 209 33773
Software number "A+" has the following extra features in comparison with software number A:

* Incredible stereo
  For selection of the incredible stereo feature, first press the I-II button to select stereo or NICAM and then press the SPATIAL button to switch on/off incredible stereo.
* TDSD2 NICAM via SAA7282:
  This software can handle both the present SAA7280 NICAM (single system) decoder and the future SAA7282 (both single system NICAM and the so called BINICAM systems BG and I). At the introduction of this SAA7282 this will be published via a separate service information.
* New hotel mode:
  Extra features of hotel mode 1 of software number "A+" in comparison with hotel mode 1 of software number "A":
  - Switching "on" the set from stand-by using the PROGRAM +/- buttons will select the last viewed program number.
  - When the preset maximum volume level for hotel mode is reached, the volume menu OSD will not increase any further.

  Extra feature of hotel mode 2 of software number "A+" in comparison with hotel mode 2 of software number "A":
  - At program numbers 30..49 in "radio mode" via OSD the word "AUDIO" will be displayed.
* Checksum:
  Via one of the options at address 245 (with values 0 and 4) it is determined whether the checksum area should be calculated over the addresses 245 up to and included 253 or over the addresses 239 up to and included 253 (the protected area in the EEPROM will be adapted accordingly, so either 245..253 or 239..253).
  Checksum calculation is done in the same way as for software number "A" (see service manual Anubis S BB chapter 8).

2. Software number 12

Anubis S BB and CC sets with production code SV03 and higher with software number 12 are foreseen with a µC with the incredible stereo feature.

* For Anubis S BB IC7600 (diagram C) software number 12 version 2.8 (ANUBIS-S12HV 2.8):
  P83C055-CV6108NB; 4822 209 33622
* For Anubis S CC IC7600 (diagram C) software number 12 version 2.9 (ANUBIS-S12HV 2.9):
  (this software version has a demo mode with AV-IN only)
  P83C055-CV6118NB; 4822 209 52596

Selection of the incredible stereo feature can be done in 2 ways:

* Direct via the SPATIAL button on the remote (toggle function incredible stereo/spatial effect on and off.
* Indirect via the SOUND-MENU via control left/right.

3. Control and muting

* **Control for Anubis S BB**
  - Shift register (output expander) HEF4094
    For Anubis S BB an (extra) shift register IC7827 (HEF4094; diagram H) is applied only in case incredible stereo is used.
    The following shift register configuration are possible:
    * 1 shift register HEF4094 (IC7132) on the Multisound panel.
    * 1 shift register HEF4094 (IC7827) on the 2CS+I/O+Ampl panel.
    * 2 shift registers HEF4094 (IC7132 and IC7827) in cascade (note the configuration table address 244 for software number "A+"" and address 252 for software number "12").
      In case of 2 shift registers jumper 9144 is present and 9143 and CUT1 on the Multisound panel are not present (diagram D). As a result the Os' at pin 10 IC7827 (diagram H) shifts through the data (16 bits i.s.o. 8 bits as there are 2 shift registers in cascade) to SDA pin 2 of IC7132 via connector 5A8A (diagram J) to connector 3C8A and jumper 9144 (diagram D).
  - Incredible stereo control in Anubis S BB
    Switching on/off the incredible stereo feature is done via pin 6 IC7827 (HEF4094) on diagram H. Via connector A7A (diagram H) to connector A7 and 3A9 (diagram J) to 3I9 and the signal line "INC-SWITCH" on the incredible sound panel.
    This "INC-SWITCH" signal line selects via IC7400 (HEF4053) between L and R audio signals with and without incredible stereo effect (INC-SWITCH "high" is incredible stereo feature "on", if "low" then "off").
* **Control for Anubis S CC**
  - Shift register (output expander) HEF4094
    For Anubis S CC an (extra) shift register IC7290 (HEF4094; diagram I of the Anubis S CC service manual) is reserved.
    * 1 shift register HEF4094 (IC7132) on the Multisound panel.
    * 1 shift register HEF4094 (IC7920) on the Interfacing + Amplification panel.
    * 2 shift registers in cascade (combination of IC7132 and IC7290).
  - Incredible stereo control in Anubis S CC
    Provisions to switch on/off the incredible stereo panel by IC7290 on the Interfacing + Amplification panel (diagram I) are not yet foreseen.
* **Muting for Anubis S BB**
  a. For sets with incredible stereo, so IC7827 present (with and without multisound panel)
     In case of a set with incredible stereo IC7827 on the 2CS+I/O+Ampl panel is present (diagram H). Muting is done via pin 4 IC7827.
     * FM_MONO mute; In case the µC (via SOUND_ID or SAP_AVAIL or NICAM_AVAIL) knows that the Multisound or NICAM or BTSC decoder have not found a correct signal, pin 4 IC7827 becomes "low". TS7828 and so TS7829 conduct. Herewith the FM_MONO signal and the NICAM or BTSC signal will be muted.
     * AV_OUT mute; In case the AV-OUT cinches are present, AV-OUT muting also takes place via pin 4 IC7827. At muting pin 4 IC7827 is "low", FM_MONO will be muted and as a result AV_OUT will be muted (AV_OUT will not be muted by TS7830, A5A and A6A, as these components are not present for sets with IC7827).

  b. For sets without incredible stereo (IC7827 not present) + with multisound panel
     In case of a set without incredible stereo IC7827 is not mounted. Jumper 9143 and CUT1 on the Multisound panel are present, jumper 9144 is not present (diagram D).
     * FM_MONO mute; FM-MONO is not muted as C2823 is not present for a set without IC7827.
     * AV_OUT mute; Muting is done via the SOUND_ID signal from the Multisound panel (diagram D). Via jumper 9143, 3C8A (diagram D), 5A8A (diagram J), via Os' and jumper 9827 and 9828 (diagram H).
       In case the Multiound panel does not detect a correct sound system, the SOUND_ID will be "low" (diagram D). By then TS7828 is driven into conduction and so TS7829 and TS7830 are conducting. Connector A5A (diagram H) is connected to A5 (diagram I of the Anubis S BB service manual) which is directly connected to the L_MONITOR output cinch. Connector A6A (diagram H) is connected to A6 (diagram I) which is directly connected to the R_MONITOR output cinch. As a result in case of muting the L_MONITOR and R_MONITOR are shorted by TS7829 and TS7830.

  c. For sets without incredible stereo (IC7827 not present) + without multisound panel
     In this case muting of AV_OUT on the 2CS+I/O+Ampl panel is not needed as there is no "noise" coming from the Multisound panel.
* **Muting for Anubis S CC**
  For sets with Multisound panel (mono and stereo versions) muting is described in the service manual of Anubis S CC (diagram I page 13)

4. Incredible stereo/sound

For stereo in television sets in general the loudspeakers are too close to each other for a good stereo effect.
Some television sets make use of a spatial effect, which measures the difference between left and right and amplifies the stereo effect before giving the signals to the left and right speakers. Although it gives some improvement it is not the real widening of stereo as if the loudspeakers are more separated.
For the Anubis S BB the sound system has been extended with an "electronic" stereo widening system.
With aid of his two ears a listener can detect where the sound is coming from. If e.g. the loudspeakers are more separated, than the angle between the boxes and the listener will be different and with this the phase and amplitude of both left and right sound signals to both ears. Via mathematic calculations of the phase relations from boxes to ears, frequency depending phase and amplitude can be determined for influencing the stereo effect.
The implemented "electronic" stereo widening system of the Anubis S BB will give the listener an experience of this "Incredible Stereo" as if the loudspeakers are really separated in line with the original transmitted stereo recording.

Realisation in the Anubis S BB and CC

The left signal L-IN is fed to a low-pass passive filter by R3206, C2202 and R3207, R3208, C2203, R3210 and R3209. This filter influences the phase characteristic from 500Hz to 15kHz and gives an amplitude variation rolling off at 1kHz.
The right signal R-IN is fed to an active phase-shift filter (starting at 500Hz) by IC7200-4A, R3201, R3200, C2200 and R3202, C2201. This filter influences the frequency and amplitude characteristic.
The output of these 2 filters are added via input pins 9 and 10 of IC7200-4B. Finally IC7300-2A amplifies the signal to compensate the level. The adapted left signal is fed to the left amplifier.
Similar the right signal is adapted: passive R-IN low pass filter, active L-IN phase-shifting (IC7200-4C), mixing (IC7400-4D) and amplitude correction (IC7300-2B).
The "Incredible Stereo" signals or the standard signals can be selected. If "INC-SWITCH" is "high":, TS7001 will conduct and IC7400 (HEF4053) will select "Incredible stereo". If "INC-SWITCH" is "low", the standard signals are selected.
IC7200-4B-4D will get the DC bias (7V) at pin 10 and 3 from R3501 and R3502.

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Estéreo Increíble

En la presente información de servicio aparecen publicados el panel de estéreo increíble con todas sus modificaciones relacionadas (el panel de estéreo increíble para el Anubis S BB es el mismo que para el Anubis CC).

Al Anubis S BB (inglés 4822 727 20262, español 4822 8727 20281; 21-25" Anubis S estéreo) se añadirá la función de estéreo increíble y será indicada con los números de tipo -/xxT (para el futuro 29" el número será -/xxR). Para el Anubis S BB el ligeramente cambiado panel Multisound (esquema D) y el ligeramente cambiado 2CS +I/O + panel de amplificación (esquema H y parte del esquema J) están incluidos en la presente información de servicio.

En el Anubis S CC (inglés 4822 727 20288, español 4822 727 20289; 14-20-21" Anubis S con panel de Interfaz y de amplificación) se puede introducir esta función de estéreo increíble también en el futuro. Para el Anubis S CC el panel de interfaz y de amplificación (esquema I) y el panel de Multisound (esquema D) están preparados ya para estéreo increíble, por consiguiente, no aparecen publicados en la presente información de servicio.

1. **Número de software A+**

   Los aparatos Anubis S BB y CC con el código de producción SV03 están dotados de un μC con el número de software "A+" (aparatos con el código de producción SV02 y, por lo tanto, con un μC con el número de software "A" permanecerán en producción en paralelo).
   El microprocesador IC7600 (esquema C) con el número de software "A+", versión 0.9 (ANUBIS-SAPHV 0.9 en el Modo de Servicio y CTV110SAPHV 0.9 impreso en el μC):
   PCA84C844P/163; 4822 209 33773
   El número de software "A+" tiene las siguientes extra funciones que no tiene el número de software A:

   * Estéreo increíble
     Para seleccionar la función de estéreo increíble, pulse primero el botón I-II para seleccionar estéreo o NICAM y pulse el botón SPATIAL para activar/desactivar el estéreo increíble.
   * TDSD2 NICAM a través de SAA7282:
     Este software puede manejar el decodificador presente SAA7280 NICAM (sistema sencillo) y el decodificador futuro SAA7282 (tanto el sistema sencillo NICAM y los llamados sistemas BINICAM BG y I). Con la introducción de este SAA7282 se publicará una separada información de servicio.
   * Nuevo modo hotel;
     Extra funciones del modo hotel 1 del número de software "A+" y que no tiene el modo hotel 1 del número de software "A":
     - Cuando se enciende el aparato desde la posición de espera pulsando los botones PROGRAM +/-, aparecerá el último número de programa que se haya estado mirando.
     - Cuando se haya alcanzado el nivel máximo del volumen que se haya preajustado para el modo hotel, el OSD del menú del volumen no aumentará más.

     Una función extra del modo hotel 2 del número de software "A+" en comparación con el modo de hotel 2 del número de software "A":
     - Con los números de programa 30..49 en el "radio mode" a través de OSD se visualizará la palabra "AUDIO".
   * *Suma de control:*
     A través de una de las opciones en la dirección 245 (con los valores 0 y 4) se determina si se debe calcular la área de la suma de control sobre las direcciones 245 hasta 253, ambas inclusive o sobre las direcciones 239 hasta 253, ambas inclusive (la área protegida en la EEPROM será adaptada conformemente, por lo tanto, 245..253 o 239..253).
     El cálculo de la suma de control se realiza del mismo modo que para el número de software "A" (véase el manual de servicio Anubis S BB, capítulo 8).

2. **Número de software 12**

   Los aparatos Anubis S BB y CC con el código de producción SV03 y códigos siguientes con el número de software 12 están dotados de un μC con la función de estéreo increíble.
   * Para el Anubis S BB IV7600 (esquema C) número de software 12, versión 2.8 (ANUBIS-S12HV 2.8):
     P83C055-CV61081NB; 4822 209 33622
   * Para el Anubis S CC IC7600 (esquema C) número de software 12, versión 2.9 (ANUBIS-S12HV 2.9):
     (esta versión de software posee un modo demo con solamente AV-IN)
     P83C055-CV6118NB; 4822 209 52596

   La selección de la función estéreo increíble se puede hacer de dos maneras:
   * Directamente a través del botón SPATIAL en el mando a distancia (función basculante estéreo increíble/efecto espacial activado y desactivado.
   * Indirectamente a través del MENU DE SONIDO mediante el mando izquierdo y derecho.

3. **Control y supresión**
   * **Control para el Anubis S BB**
     - Registro de desplazamiento (expansor de salida) HEF4094:
       Para el Anubis S BB se ha aplicado solamente un registro de desfasamiento (extra) IC7827 (HEF4094; esquema H) cuando se usa estéreo increíble.
       Las siguientes configuraciones del registro de desplazamiento son posibles:
       * 1 registro de desplazamiento HEF4094 (IC7132) en el panel Multisound
       * 1 registro de desplazamiento HEF4094 (IC7827) en el 2CS+I/O+panel de amplificación.
       * 2 registros de desplazamiento HEF4094 (IC7132 e IC7827) en cascada (observe la tabla de configuración dirección 244 para el número de software "A+" y la dirección 252 para el número de software "12").
         En el caso 2 registros de desplazamiento, los saltadores 9144 y 9143 están presentes y CUT1 en el panel Multisound no está presente (esquema D). A consecuencia de ello el OS en la patilla 10 del IC7827 (esquema H) desplaza por los datos (16 bits o 8 bits si hay dos registros de desplazamiento en cascada) a SDA patilla 2 del IC7132 a través del conector 5A8A (esquema J) al conector 3C8A y saltador 9144 (esquema D)
     - Control de estéreo increíble en el Anubis S BB
       La función estéreo increíble se activa o se desactiva a través de la patilla 6 del IC7827 (HEF4094) en el esquema H. A través del conector A7A (esquema H) al conector A7 y 3A9 (esquema J) a 319 y la línea de señal "INC-SWITCH" en el panel de sonido increíble. Esta línea de señal "INC-SWITCH" selecciona, a través del IC7400 (HEF4053), entre señales acústicas L o R(izquierda o derecha) con y sin efecto de estéreo increíble (si el INC-SWITCH está en alta: "high", entonces la función de estéreo increíble esta activada, si está en baja:
       "low", entonces está desactivada.
   * **Control para Anubis S CC**
     - Registro de desplazamiento (expansor de salida) HEF4094:
       Para el Anubis S CC se ha aplicado un (extra) registro de desplazamiento IC7290 (HEF4094; esquema I del manual de servicio del Anubis S CC) está reservado
       * 1 registro de desplazamiento HEF4094 (IC7132) en el panel Multisound
       * 1 registro de desplazamiento HEF4094 (IC7920) en el panel de interfaz y de amplificación.
       * 2 registros de desplazamiento en cascada (una combinación de (IC7132 e IC7290).
     - Control de estéreo increíble en el Anubis S CC
       Aún no se han tomado provisiones para que el IC7290 pueda activar y desactivar el panel de estéreo increíble en el panel de interfaz y de amplificación (esquema I).
   * **Supresión para el Anubis S BB**
     a. Para aparatos con estéreo increíble, así que, el IC7827 está presente (con y sin el panel multisound)
        En caso de un aparato con estéreo increíble, el IC7827 está presente en el 2CS+I/O+panel de amplificación (esquema H). La supresión se efectúa a través de la patilla 4 IC7827.
        * Supresión FM-MONO; en el caso que el μC (a través de SOUND-ID o SAP-AVAIL o NICAM-AVAIL) detecta que el Multisound o el decodificador NICAM o BTSC no han encontrado una señal correcta, la patilla 4 del IC7827 se pone en "baja". El TS7828 y, en consecuencia, el TS7829 conducen. Debido a ello la señal FM-MONO y la señal NICAM o BTSC serán suprimidas.
        * Supresión AV-OUT; Si los cinches AV-OUT están presentes, la supresión AV-OUT tiene también lugar a través de la patilla 4 IC7827. Al suprimir la patilla 4 del IC7827 está en "baja", FM-MONO será suprimido y a consecuencia de ello también AV-OUT será suprimido (AV-OUT no será suprimido por TS7830, A5A y A6A, ya que estos componentes no están presentes para aparatos con IC7827.

     b. Para aparatos con estéreo increíble (IC7827 no presente) + con panel multisound
        En los aparatos sin estéreo increíble no está montado el IC7827. El saltador 9143 y CUT1 en el panel Multisound están presentes, el saltador 9144 no está presente (esquema D).
        * Supresión FM-MONO; FM-MONO no se suprime ya que C2823 no está presente en los aparatos que no tienen IC7827.
        * Supresión AV OUT; La supresión se efectúa a través de la señal SOUND-ID del panel Multisound (esquema D), a través del saltador 9143, 3C8A (esquema D), 5A8A (esquema J), a través de Os y los saltadores 9827 y 9828 (esquema H).
          Cuando el panel Multisound no detecta un sistema de sonido correcto, el SOUND-ID estará en "baja" (esquema D). TS7823 habrá entrado en conducción y, por lo tanto, TS7829 y TS7830 conducen. El conector A5A (esquema H) está conectado con A5 (esquema I del manual de servicio del Anubis S BB) que está conectado directamente con el cinch de la salida L-MONITOR. El conector A6A (esquema H) está conectado con A6 (esquema I) el cual está conectado directamente con el cinch de salida R-MONITOR. Como consecuencia de ello, el L-MONITOR y el R-MONITOR están cortados por TS7829 y TS7830.

     c. Para aparatos sin estéreo increíble (IC7827 no presente) + sin panel multisound
        En este caso la supresión del AV-OUT en 2CS+I/O+ panel de amplificación no está presente ya que no saleningún "ruido" del panel Multisound.
   * **Supresión para el Anubis S CC**
     Para aparatos con panel Multisound (versiones mono y estéreo) la supresión está descrita en el manual de servicio del Anubis S CC (esquema I, página 13).

4. **Sonido/estéreo increíble**

   Para poder escuchar bien el efecto estéreo de los aparatos de televisión, la distancia entre las altavoces suele estar demasiado corta.
   Algunos aparatos de televisión hacen uso de un efecto espacial, que mide la diferencia entre el canal izquierdo y derecho y amplifica el efecto estéreo antes de transmitir las señales a los altavoces izquierdo y derecho. Aunque es una mejora, sin embargo no es realmente la ampliación de estéreo como si las altavoces estuvieran más separadas.
   Para el Anubis S BB el excelente sistema acústico ha sido ampliado con un sistema "electrónico" de amplificación del estéreo.
   Mediante sus dos oídos el oyente puede detectar de donde proviene el sonido. Si, por ejemplo, la distancia entre los dos altavoces fuera más grande, el ángulo entre las altavoces y el oyente sería diferente y con ello también las fases y la amplitud de las señales acústicas izquierdas y derechas a ambas oídos. Haciendo cálculos aritméticos de las relaciones de fases de los altavoces a los oídos, es posible determinar la fase y amplitud que depende de la frecuencia para influenciar en el efecto estereofónico.
   El sistema "electrónico" de amplificación del estéreo introducido en el Anubis S BB da al oyente un experiencia de este "Estéreo Increíble" como si los altavoces estuvieran realmente separados de acuerdo con la grabación estereofónica originalmente transmitida.

   Realización en el Anubis S BB y CC

   La señal izquierda L-IN es alimentada a un filtro pasivo de paso bajo por R3206, C2202 y R3207, R3208, C2203, R3210 y R3209. Este filtro influye en la característica de fase de 500Hz a 15kHz, dando una variación de amplitud cortando a 1kHz.
   La señal derecha R-IN es alimentada a un filtro activo de desfasamiento (comenzando a 500Hz), por el IC 7200-4A, R3201, R3200, C2200 y R3202, C2201. Este filtro influye en la característica de la frecuencia y de la amplitud.
   La salida de estos 2 filtros es añadida a las patillas 9 y 10 del IC7200-4B. Finalmente, el IC7300-2A amplifica la señal para compensar el nivel. La señal izquierda adaptada es alimentada al amplificador izquierdo.
   La señal derecha se adapta similarmente: R-IN pasivo filtro de paso bajo, L-IN activo desplazamiento de fase (IC7200-4C), mezclando (IC7400-4D y corrección de amplitud (IC7300-2B).
   Se puede seleccionar las señales "Estéreo increíble" o las señales estándar. Si "INC-SWITCH" está en "alta", TS7001 conducirá y el IC7400 (HEF4053) seleccionará "Estéreo increíble". Si "INC Switch" está en "baja", se seleccionan las señales estándar. El IC7200-4B-4D tomará la polarización de corriente continua (7V) en las patillas 10 y 3 de R3501 y R3502.

Option setting table for software number "A+" (so "A+"!!!) and IC(only for VST sets)

Address	Option A	Value	Option B	Value
239*)	Maximum error limit values for the SAA7282 (TDSD2)			80
240*)	Minimum error limit values for the SAA7282 (TDSD2)			20
241*)	Not used			255
242*)	Not used			255
243*)	Not used			255
244*)	Not used			0
	Not used			0
	Not used			0
	Remote STORE key allowed	0	Remote STORE key not allowed	16
	If no Anubis S CC sets or Anubis S CC set without Multisound panel	0	For Anubis S CC sets with Multisound panel (muting and spatial via IC7132)	8
	Set with no HEF4094 or only one HEF4094 shift register - for Anubis S BB either IC7132 or IC7827 (only one) - for Anubis S CC either IC7132 or IC7827 (only one)	0	Set with two HEF4094 shift registers - for Anubis S BB IC7132 and IC7827 present (both) - for Anubis S CC IC7132 and IC7290 present (both)	4
	Incredible stereo panel present	0	Incredible stereo panel not present	2
	SAA7282 (TDSD2) used as single system	0	SAA7282 (TDSD2) used as dual system (BINICAM)	1
245	2CS stereo decoder (IC7800) present	0	2CS stereo decoder (IC7800) not present	128
	AV stereo playback present	0	AV uses mono only	64
	No AV selectable	0	AV present	32
	No spatial sound possible	0	Spatial sound selectable	16
	No hue control possible	0	Hue control possible	8
	Checksum area to be calculated from address 245 up to and included 253 (also protected EEPROM area by then from 245 up to and included 253)	0	Checksum area to be calculated from address 239 up to and included 253 (also protected EEPROM area by then from 239 up to and included 253) *)	4
	NICAM uses SAA7282 (TDSD2)	0	NICAM uses TDA7280 (TDSD1)	2
	UV973 tuner is used (bandswitch signals for VHF1 and VHF3 are swapped	0	"Normal" bandswitch signals	1
246	No hotel mode possible	0	Hotel mode can be enabled	128
	No UHF tuning possible	0	UHF band allowed	64
	No VHF3 tuning possible	0	VHF3 band allowed	32
	No VHF1 tuning possible	0	VHF1 band allowed	16
	Not used			0
	Multisound panel not present (no sound standard selection)	0	Multisound panel present (auto, M, B/G, I, D/K sound selection possible)	4
	Not used			0
	No colour system selection	0	Auto, SECAM, PAL(/NTSC)	1
247	NICAM panel not present, multisound panel not present			40
	NICAM panel not present, multisound panel present			41
	NICAM panel present, multisound panel not present			168
	NICAM panel present, multisound panel present			169
248	UV 913 / UV 973 (VST)			191
	UV 915 (VST)			42
	UV 953 (VST)			162
249	UV 913 / UV 953 / UV 973 (VST)			93
	UV 915 (VST)			73
250	UV 913 / UV 953 / UV 973 (VST)			25
	UV 915 (VST)0251UV 913 / UV 953 / UV 973 (VST)			134
	UV 915 (VST)			129
252	All VST tuners			0
253	UV 913 / UV 915 / UV 973 (VST)			224
	UV 953 (VST)			225
254	Checksum (see for calculation of the checksum service manual chapter 8) Add data from addresses 245 up to and included 253 or addresses 239 up to and included 253*). Then (if necessary) subtract 256 until the data has a value under 256. If checksum is not OK the set will use default setting.			

GB

Option setting table for software number 12
(only for PLL sets)

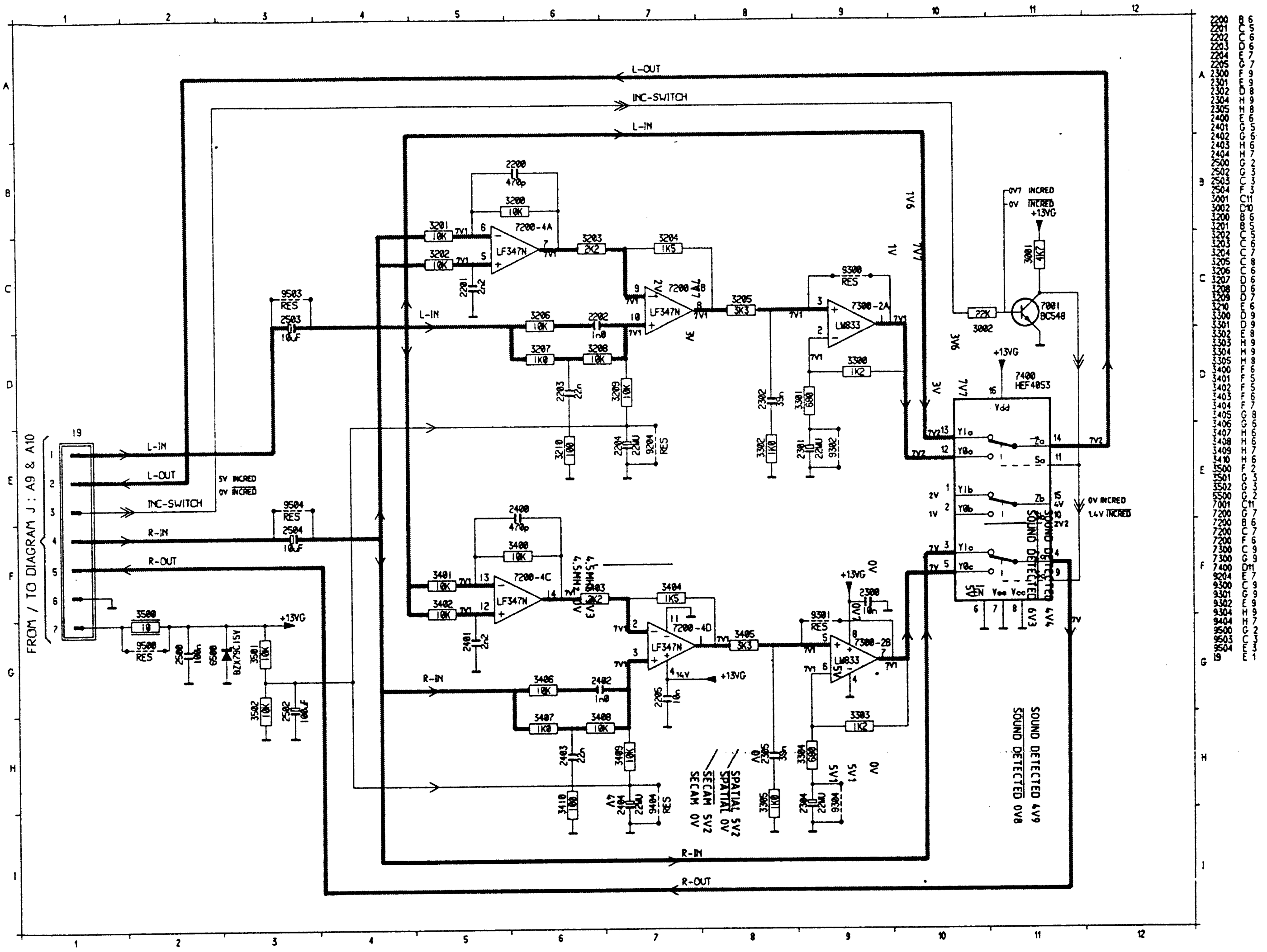
Address	Option A	Value	Option B	Value
252	BTSC panel not present	0	BTSC panel present	128
	Mono set	0	AV stereo playback	64
	No HEF4094 present - for Anubis S BB IC7827 not present - for Anubis S CC IC7290 not present	0	a HEF4094 shift register present - for Anubis S BB IC7827 present - for Anubis S CC IC7290 present	32
	AV selection not allowed	0	AV selection allowed	16
	No trinorma set	0	Trinorma set	8
	No incredible stereo panel present	0	Incredible stereo panel present	4
	Not used			0
	Not used			0
253	No subwoofer present	0	Subwoofer present	128
	5 keys local control	0	8 keys local control	64
	Protection bit can not be saved in EEPROM	0	Protection bit is saved in EEPROM (so after protection occurred, the set remains in protection until entering the Service Mode)	32
	Spatial feature is not present	0	Spatial feature is present	16
	Multi voltage is not present	0	Multi voltage is present	8
	Sharpness feature is not present	0	Sharpness feature is present	4
	Hotel mode not allowed	0	Hotel mode allowed	2
	HUE control disabled	0	HUE control enabled; NTSC only sets	1
254	Checksum (see for calculation of the checksum service manual chapter 8) Add data on address 252 and 253 and then (if necessary) subtract 256 until the data has a value under 256. If checksum is not OK the set will use default setting.			

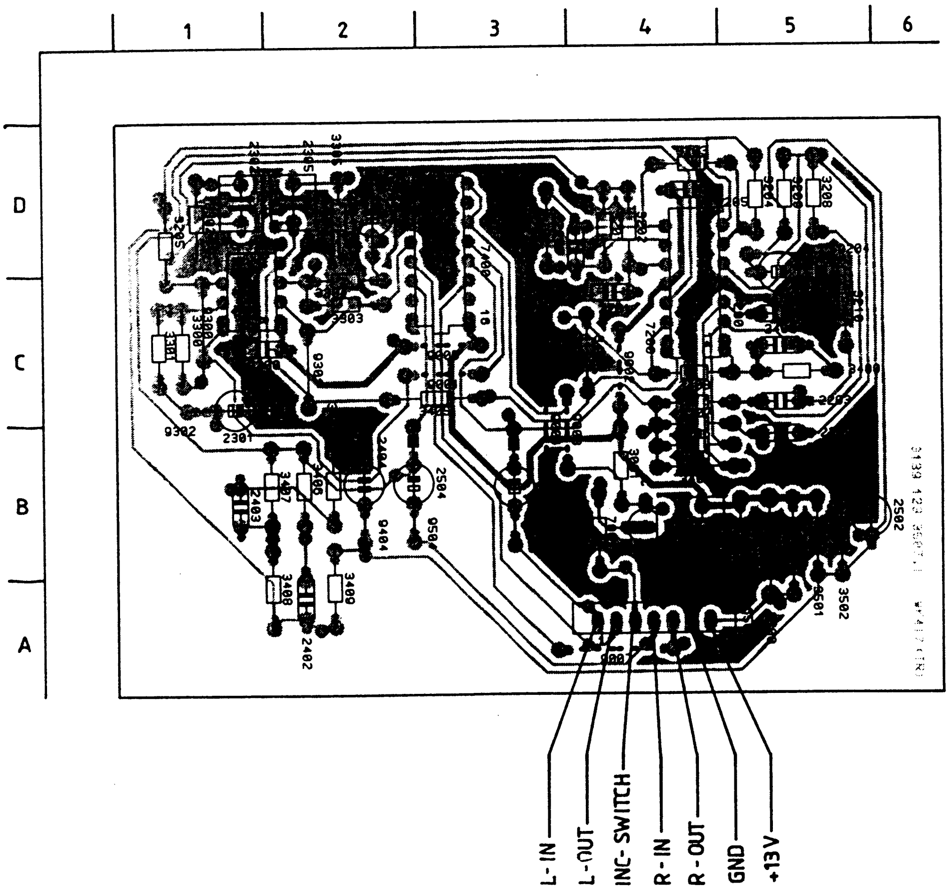
E

Tabla de ajuste de opciones para el número de software 12
(Solamente para aparatos PLL)

Dirección	Opción A	Valor	Opción B	Valor
252	Panel BTSC no presente	0	Panel BTSC presente	128
	Aparato mono	0	Reproducción AV estéreo	64
	HEF 4094 no presente - para anubis S BB IC7827 no presente - para Anubis S CC IC7290 no presente	0	Registro de desfasamiento HEF4094 presente - para Anubis S BB IC7827 presente - para Anubis S CC IC7290 presente	32
	Selección AV no permitido	0	Selección AV permitido	16
	No aparato norma	0	Aparato norma	8
	Panel estéreo increíble no presente	0	Panel estéreo increíble presente	4
	No usado			0
	No usado			0
253	No 'subwoofer' (altavoz de tonos bajos) presente	0	'Subwoofer' presente	128
	Control local 5 teclas	0	Control local 8 teclas	64
	Bit de protección no puede ser almacenado en EEPROM	0	Bit de protección está almacenado en EEPROM (a saber: una vez realizada la protección, el equipo permanece en protección hasta que entra en el Modo de Servicio)	32
	Función espacial no presente	0	Función espacial presente	16
	Multi tensión no presente	0	Multi tensión presente	8
	Función de nitidez no presente	0	Función de nitidez presente	4
	Modo hotel no permitido	0	Modo hotel permitido	2
	Control HUE desactivado	0	Control HUE activado; NTSC solamente activa	1
254	Suma de control: se suman (véase para esta suma el manual de servicio, capítulo 8) los datos a las direcciones 252 y 253 y luego (si fuese necesario) se resta 256 hasta que el dato tenga un valor inferior a 256. Si la suma de control no está correcta, el equipo utilizará los valores por omisión.			

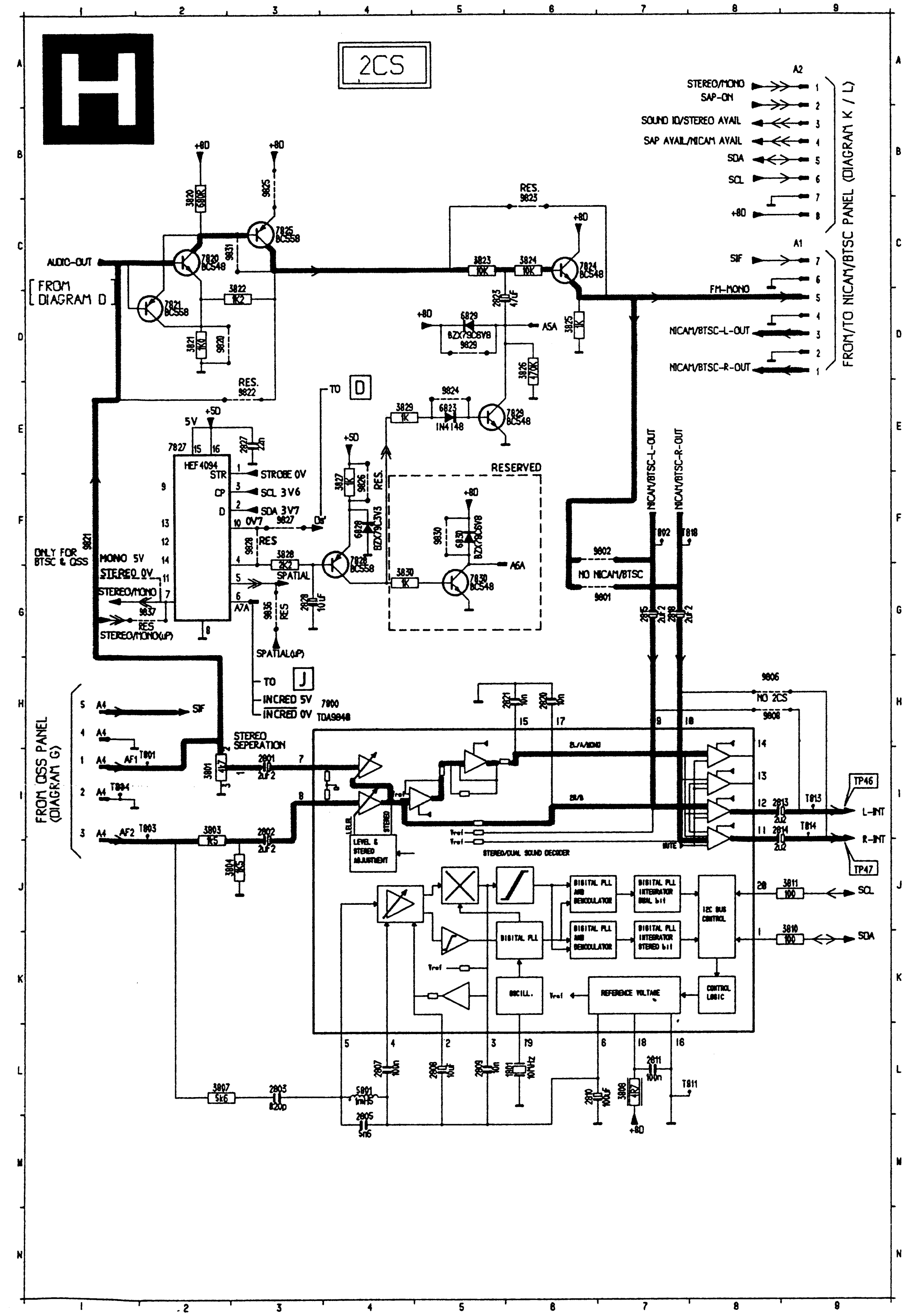
Incredible stereo panel (Anubis S BB&CC)


L-OUT
INC-SWITCH
L-IN
R-IN
R-OUT
FROM / TO DIAGRAM J : A9 & A10
19
7200-4A
7200-4B
7200-4C
7200-4D
LF347N
7300-2A
7300-2B
LM833
7400
HEF4053
7001
BC548
+13VG
SOUND DETECTED 4V9
SOUND DETECTED 0V8
SPATIAL 5V2
SPATIAL 0V
SECAM 5V2
SECAM 0V
0V INCRED
1.4V INCRED
0V7 INCRED
0V INCRED
5V INCRED
0V INCRED
BZX79C15V


1
2
3
4
5
6
D
C
B
A
L-IN
L-OUT
INC-SWITCH
R-IN
R-OUT
GND
+13V

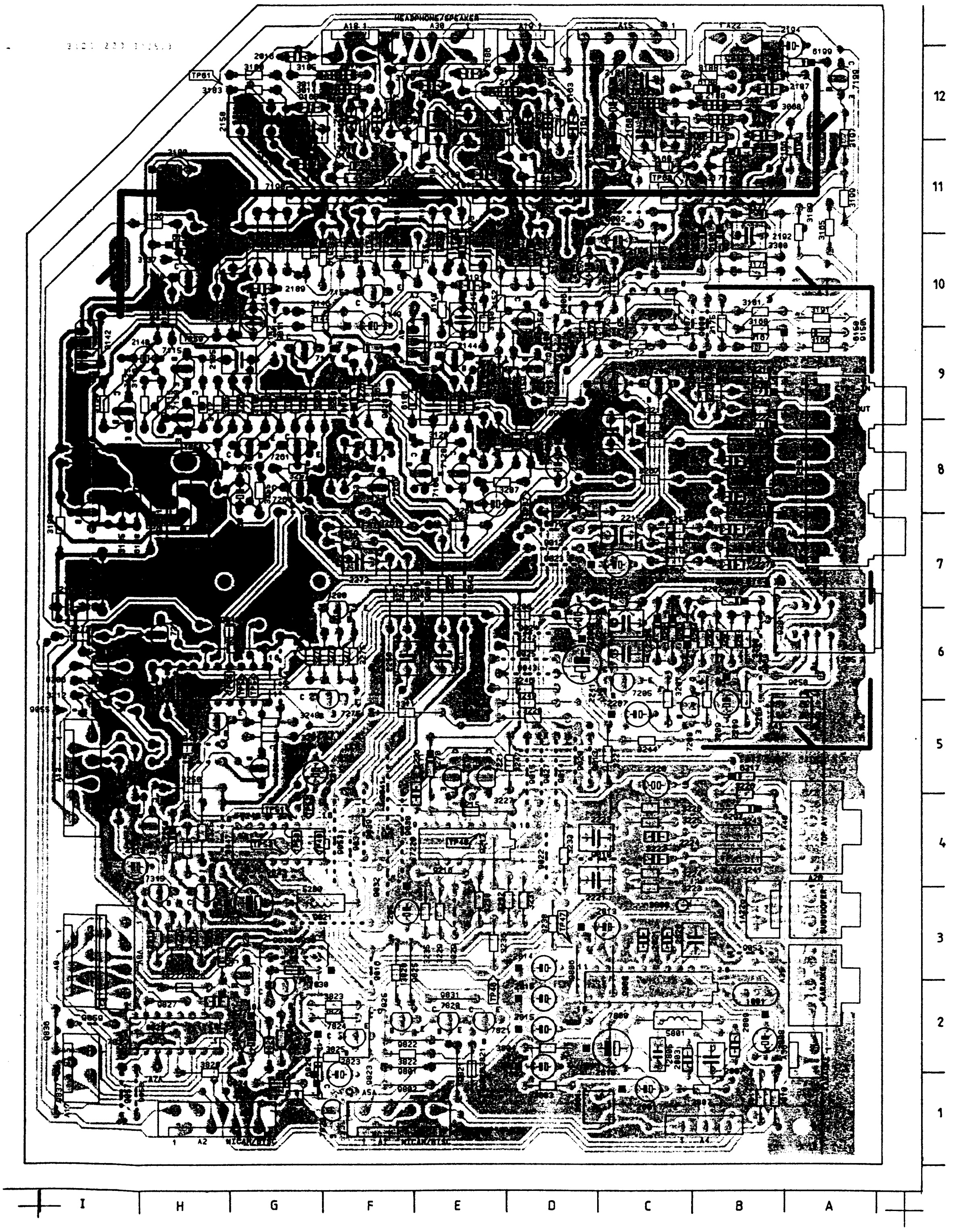
2200	C4
2201	C4
2202	B5
2203	B5
2204	C5
2205	D4
2300	C2
2301	B1
2302	D1
2304	D2
2305	D2
2400	C5
2401	C5
2402	A2
2403	B1
2404	B2
2500	B4
2502	B6
2503	B3
2504	B3
3001	B4
3002	B4
3200	D3
3201	D4
3202	D4
3203	D4
3204	D5
3205	D1
3206	B4
3207	B4
3208	D5
3209	D5
3210	C5
3300	C1
3301	C1
3302	D1
3303	C2
3304	C2
3305	D2
3400	C5
3401	B4
3402	B4
3403	C4
3404	C4
3405	C3
3406	B2
3407	B2
3408	A2
3409	A2
3410	B2
3500	A5
3501	B5
3502	B5
6500	A5
7001	B4
7200	C4
7300	C1
7400	C3
9001	C3
9002	C4
9003	B4
9004	B3
9005	C3
9204	C5
9300	C1
9301	C2
9302	B1
9304	D2
9404	B2
9500	A5
9503	B3
9504	B3
I9	A4

2 CS + I/O part (Anubis S BB)


H
2CS
STEREO/MONO
SAP-ON
SOUND ID/STEREO AVAIL
SAP AVAIL/NICAM AVAIL
SDA
SCL
+8D
A2
A1
SIF
FM-MONO
NICAM/BTSC-L-OUT
NICAM/BTSC-R-OUT
FROM/TO NICAM/BTSC PANEL (DIAGRAM K / L)
AUDIO-OUT
FROM DIAGRAM D
7820 BC548
7821 BC558
7825 BC558
7824 BC548
7829 BC548
7828 BC558
7830 BC548
RES. 9825
RES. 9822
TO D
7827 HEF4094
STROBE 0V
SCL 3V6
SDA 3V7
ONLY FOR BTSC & QSS
MONO 5V
STEREO 0V
STEREO/MONO
STEREO/MONO(μP)
SPATIAL
SPATIAL(μP)
TO J
INCRED 5V
INCRED 0V
7800 TDA9840
RESERVED
6823 1N4148
6829 BZX79C6V8
6828 BZX79C3V3
6830 BZX79C6V8
A5A
A6A
NO NICAM/BTSC
NO 2CS
FROM QSS PANEL (DIAGRAM G)
SIF
AF1
AF2
STEREO SEPERATION
LEVEL & STEREO ADJUSTMENT
STEREO/DUAL SOUND DECODER
DIGITAL PLL AND DEMODULATOR
DIGITAL PLL INTEGRATOR DUAL bit
DIGITAL PLL INTEGRATOR STEREO bit
DIGITAL PLL
I2C BUS CONTROL
OSCILL.
REFERENCE VOLTAGE
CONTROL LOGIC
MUTE
TP46
TP47
L-INT
R-INT
SCL
SDA
1801 10MHz
+8D

1801	L	6
2801	I	3
2802	I	3
2803	L	3
2805	M	4
2807	L	4
2808	L	5
2809	L	5
2810	L	6
2811	L	7
2813	I	8
2814	I	8
2815	G	7
2818	G	7
2820	H	6
2821	H	6
2823	D	5
2827	E	3
2828	G	3
3801	I	2
3803	I	2
3804	J	3
3807	L	2
3808	L	7
3810	K	9
3811	J	9
3820	B	2
3821	D	2
3822	D	3
3823	C	5
3824	C	6
3825	D	6
3826	D	6
3827	F	4
3828	F	3
3829	E	4
3830	G	4
5801	L	4
6823	E	5
6828	F	4
6829	D	5
6830	F	5
7800	H	3
7820	C	2
7821	D	2
7824	C	6
7825	C	3
7827	E	2
7828	F	4
7829	E	6
7830	G	5
9801	G	7
9802	F	7
9806	H	8
9808	H	8
9820	D	2
9821	F	1
9822	E	3
9823	C	6
9824	E	5
9825	B	3
9826	F	4
9827	F	3
9828	F	3
9829	D	5
9830	F	5
9831	C	3
9836	G	3
9837	G	2
A1	C	9
A1	D	9
A1	D	9
A1	D	9
A1	D	9
A1	D	9
A1	C	9
A2	A	9
A2	C	9
A2	B	9
A2	B	9
A2	B	9
A2	B	9
A2	B	9
A2	A	9
A4	I	1
A4	I	1
A4	I	1
A4	H	1
A4	H	1
A5A	D	6
A6A	G	6
A7A	G	3
T801	I	2
T802	F	7
T803	I	2
T804	I	1
T811	L	8
T813	I	9
T814	I	9
T818	F	8

2 CS + I/O + Amplification part (Anubis S BB)



1205	A6	3136	H11	3273	I6	7825	F2
1210	A8	3137	H10	3275	F6	7827	H2
1801	B2	3140	H11	3276	G6	7828	G3
2016	G12	3141	H10	3277	F6	7829	F1
2017	F12	3143	G10	3278	F6	7830	G2
2101	E9	3144	G9	3283	G9	9000	B10
2105	G9	3145	G10	3285	B9	9001	F11
2140	H9	3146	G10	3286	B9	9002	C11
2141	G10	3147	E10	3287	E8	9003	F10
2142	G10	3148	E10	3289	H8	9004	D11
2143	G10	3149	E10	3291	G5	9005	C11
2144	E10	3150	E10	3294	E8	9006	D10
2145	E10	3151	H10	3295	D8	9007	C10
2146	E10	3152	E10	3296	G9	9008	B6
2147	D10	3153	G10	3297	G9	9009	D9
2148	F10	3154	F10	3300	B10	9010	F9
2149	F9	3155	E10	3311	F5	9011	G9
2150	G12	3156	G10	3315	H3	9012	D7
2151	G11	3157	C10	3316	H3	9013	D5
2152	E12	3158	D9	3320	H3	9014	D5
2153	E11	3159	D9	3321	H4	9015	D5
2154	G12	3160	G12	3325	H4	9016	F3
2155	E12	3161	F11	3597	I12	9017	G3
2156	C10	3162	D12	3598	I12	9018	C4
2157	F12	3163	D11	3599	I11	9019	D7
2158	G12	3164	C10	3801	C1	9020	D5
2159	E12	3165	A11	3803	D1	9021	F3
2160	C12	3166	A9	3804	D2	9022	D4
2161	F12	3167	B9	3807	B1	9023	D7
2162	F12	3168	B9	3808	B3	9024	D6
2163	D12	3169	C11	3810	B1	9025	D6
2164	D12	3170	F10	3811	B1	9026	F7
2165	B12	3171	D10	3820	F3	9027	D5
2166	B12	3172	C9	3821	E2	9028	F9
2167	C12	3173	C9	3822	F2	9029	E3
2168	F12	3174	D9	3823	F2	9030	F4
2169	D12	3175	B10	3824	F2	9031	F4
2170	C12	3176	B10	3825	F2	9032	F4
2180	H11	3177	B11	3826	G1	9033	G4
2182	C11	3178	B11	3827	H2	9039	F4
2183	B12	3179	F12	3828	H1	9040	E7
2184	C12	3180	F12	3829	G2	9041	F5
2185	C12	3181	B10	3830	G2	9042	E7
2186	E12	3183	G12	5200	F3	9043	D6
2187	B12	3184	E12	5201	D8	9044	G6
2188	B12	3185	F12	5801	C2	9045	G10
2189	G10	3186	D12	6101	F9	9046	G6
2190	E12	3187	B12	6109	D9	9047	H4
2191	E10	3188	B12	6140	H10	9048	H5
2192	B10	3189	A10	6150	A9	9049	E10
2193	I6	3190	I8	6188	B12	9050	H6
2194	A12	3191	A10	6190	D10	9051	G6
2195	D12	3192	H7	6191	D10	9052	B3
2199	G12	3193	I7	6192	E11	9053	F4
2200	G3	3194	I8	6193	F10	9054	H5
2202	C6	3195	I8	6194	F11	9055	I5
2205	C6	3196	A11	6195	E10	9056	H10
2206	D6	3197	A12	6196	B10	9057	I1
2209	B5	3198	B12	6197	I7	9058	I1
2210	C8	3199	A11	6198	H8	9059	I2
2211	B8	3201	B6	6199	A12	9142	I9
2215	C7	3202	B6	6201	C6	9145	E9
2216	B7	3203	D6	6202	B7	9150	A9
2220	C5	3204	B6	6203	C6	9161	F12
2221	D4	3205	B5	6204	C6	9163	D12
2222	C4	3206	C7	6205	B9	9165	B12
2223	D4	3207	C5	6206	I6	9167	I7
2224	C4	3208	B6	6207	I6	9168	F12
2226	E4	3209	B5	6208	B9	9169	D12
2235	F3	3210	B9	6217	B5	9170	C12
2241	D6	3211	C8	6222	B8	9192	H7
2250	F6	3212	I6	6270	E5	9201	B6
2251	E6	3213	B8	6275	F9	9215	E4
2255	C9	3214	I6	6276	F9	9216	E4
2265	D8	3215	C7	6295	B10	9217	E4
2267	C7	3216	B7	6296	B11	9250	A6
2268	G8	3220	D5	6297	B4	9801	F2
2269	E8	3221	C5	6298	H4	9802	F1
2270	B7	3223	C3	6823	G1	9806	D3
2271	B8	3224	C4	6828	H3	9808	C3
2272	F7	3225	C4	6829	G1	9820	E2
2287	C5	3226	B4	6830	G3	9821	E1
2311	G5	3227	E4	7105	G8	9822	F2
2315	I4	3228	C4	7106	E8	9823	F2
2801	C1	3229	E3	7110	G9	9824	G1
2802	D2	3230	E3	7115	H9	9825	F3
2803	C2	3231	D3	7120	E8	9826	H2
2805	C2	3232	D3	7125	I9	9827	H2
2807	B2	3233	D4	7130	H9	9828	H2
2808	B2	3235	E3	7135	E9	9829	G1
2809	B2	3236	E3	7140	H10	9830	G3
2810	C2	3238	D3	7150	D10	9831	E2
2811	B3	3239	H3	7151	D9	9836	I2
2813	C3	3241	B4	7152	F10	9837	I1
2814	D3	3242	D6	7190	F11	A1	F1
2815	D2	3243	B4	7191	D11	A2	H1
2818	D2	3244	C5	7192	B11	A4	B1
2820	C3	3245	I5	7193	H8	A5	B8
2821	C3	3246	D6	7194	I7	A5A	F1
2823	F1	3247	D5	7195	C10	A6	B7
2827	H2	3248	G5	7199	A12	A6A	G2
2828	G2	3249	D5	7205	C6	A7	E10
3006	C12	3250	H5	7208	B5	A7A	H2
3007	B12	3251	I5	7219	E5	A8	I3
3008	B12	3252	C8	7220	E4	A8A	I3
3009	D12	3253	F8	7221	E5	A9	F9
3010	D12	3254	C7	7240	G4	A10	I9
3011	E12	3255	G8	7250	H4	A13	I5
3014	F12	3256	F7	7260	G8	A15	C12
3015	F12	3257	G8	7261	G8	A17	I1
3016	F12	3258	F9	7265	F8	A18	F12
3101	E9	3259	F7	7266	F8	A19	D12
3105	H9	3260	G9	7270	H6	A20	A3
3106	G9	3261	F7	7271	H6	A22	B12
3108	G9	3262	E7	7275	F6	A22a	B3
3110	G10	3263	E7	7280	F6	A30	E12
3112	H9	3264	F8	7285	C9	A35	A2
3115	H9	3265	F9	7291	G5	A36	A2
3116	H9	3266	C7	7315	H3	A40	A4
3120	E8	3267	C8	7320	H3	A41	A5
3121	D8	3268	B7	7325	H5		
3124	E9	3269	B8	7800	C2		
3126	E8	3270	H6	7820	E2		
3130	I9	3271	G6	7821	E2		
3135	E9	3272	F7	7824	F2		

PCS 74 349

Spare parts list / Listado de Repuestos

Microprocessors

7600	4822 209 33773	PCA84C844P/163 (number A+ V0.9)
7600	4822 209 33622	P83C055-CV6108 (number 12 V2.8)
7600	4822 209 52596	P83C055-CV6118 (number 12 V2.9)

2CS+I/O+Ampl panel (for interfacing to incredible stereo panel) [H/I/J]

Various

	4822 276 13499	1 pin 2.35 mm 50 mA/24V
	4822 265 30913	3 pins male WTB for A20
	4822 265 31193	3 pins male WTB
	4822 265 30378	4 pins male WTB
	4822 265 30933	Header 4 pins
	4822 265 40421	6 pins male WTB
	4822 290 40295	7 pins male WTB
	4822 265 40818	8 pins male WTB
	4822 267 41149	6 pole cinch block
	4822 460 11004	Ornamental plate cinch only
	4822 460 11005	Ornamental plate cinch + SVHS
	4822 492 70788	IC spring for amplifiers
1801	4822 242 80276	10.000 000 MHz

⊣⊢

2101	4822 121 41856	22nF 5% 250V
2105	5322 121 42465	68nF 5% 63V
2140	4822 124 21443	2.2µF 20% 50V
2141▲	4822 124 40246	4.7µF 20% 63V
2144▲	4822 124 40246	4.7µF 20% 63V
2147	5322 124 41431	22µF 20% 35V
2148	4822 121 41856	22nF 5% 250V
2149	4822 124 40248	10µF 20% 63V
2150	5322 121 42386	100nF 5% 63V
2151	4822 126 12643	22nF 20% 50V
2152	5322 121 42386	100nF 5% 63V
2153	4822 126 12643	22nF 20% 50V
~~2154~~	~~5322 121 42386~~	~~100nF 5% 63V~~
2155	5322 121 42386	100nF 5% 63V
2156	5322 124 41431	22µF 20% 35V
2157	4822 124 40248	10µF 20% 63V
2160	5322 121 42386	100nF 5% 63V
2161	4822 121 43526	47nF 5% 250V
2162	4822 121 43526	47nF 5% 250V
2163	4822 121 43526	47nF 5% 250V
2164	4822 121 43526	47nF 5% 250V
2166	4822 126 12643	22nF 20% 50V
2167	4822 124 41407	0.47µF 20% 63V
2168	4822 126 12639	2.2nF 20%
2169	4822 126 12639	2.2nF 20%
2180	4822 124 40248	10µF 20% 63V
2182	4822 124 22263	220µF 20% 25V
2183	4822 122 33306	4.7nF 5% 50V
2184	5322 121 42661	330nF 5% 63V
2185	4822 121 42408	220nF 5% 63V
2187	4822 126 12643	22nF 20% 50V
2189	4822 121 51379	82nF 5% 63V
2191	4822 121 51379	82nF 5% 63V
2192	4822 121 43823	470nF 5% 50V
2193	4822 121 42408	220nF 5% 63V
2200	4822 124 40255	100µF 20% 63V
2202	5322 121 42386	100nF 5% 63V
2205	4822 121 42408	220nF 5% 63V
2206	4822 124 80854	1µF 20% 50V
2209	4822 124 40248	10µF 20% 63V
2210	4822 121 51252	470nF 5% 63V
2211	4822 126 12519	330pF 10%
2215	4822 121 51252	470nF 5% 63V
2216	4822 126 12519	330pF 10%
2226	5322 122 32491	1nF 20% 100V
2235	4822 124 40248	10µF 20% 63V
2241	4822 124 40255	100µF 20% 63V
2250	4822 121 51252	470nF 5% 63V
2251	4822 121 51252	470nF 5% 63V
2255	4822 124 40248	10µF 20% 63V
2265	4822 124 40242	1µF 20% 63V
2267	4822 124 40242	1µF 20% 63V
2268	4822 124 40242	1µF 20% 63V
2269	4822 124 40242	1µF 20% 63V
2270	5322 122 32491	1nF 20% 100V
2271	5322 122 32491	1nF 20% 100V
2287	4822 124 40248	10µF 20% 63V
2311	4822 124 80854	1µF 20% 50V
2315	4822 124 40248	10µF 20% 63V
2801	4822 124 41576	2.2µF 20% 50V
2802	4822 124 41576	2.2µF 20% 50V
2803	5322 122 32356	820pF 10% 100V
2805	4822 121 51372	5.6nF 2% 250V
2807	5322 121 42386	100nF 5% 63V
2808	4822 124 40248	10µF 20% 63V
2809	4822 121 41857	10nF 5% 250V
2810	4822 124 41643	100µF 20% 16V
2811	5322 121 42386	100nF 5% 63V
2813	4822 124 41576	2.2µF 20% 50V
2814	4822 124 41576	2.2µF 20% 50V
2815	4822 124 41576	2.2µF 20% 50V
2818	4822 124 41576	2.2µF 20% 50V
2820	4822 121 41857	10nF 5% 250V
2821	4822 121 41857	10nF 5% 250V
2823	4822 124 22347	15µF 50V 10%
2827	4822 126 12643	22nF 20% 50V
2828	4822 124 40248	10µF 20% 63V

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3007	4822 050 26808	6Ω8 1% 0.6W
3008	4822 050 26808	6Ω8 1% 0.6W
3101	4822 116 52175	100Ω 5% 0.5W
3105▲	4822 116 52263	2k7 5% 0.5W
3106▲	4822 116 52233	10k 5% 0.5W
3108▲	4822 116 52256	2k2 5% 0.5W
3110	4822 116 52243	1k5 5% 0.5W
3112	4822 116 52285	470k 5% 0.5W
3115▲	4822 116 52283	4k7 5% 0.5W
3116▲	4822 116 52283	4k7 5% 0.5W
3120▲	4822 116 52263	2k7 5% 0.5W
3121▲	4822 116 52256	2k2 5% 0.5W
3124▲	4822 116 52233	10k 5% 0.5W
3126	4822 116 52303	8k2 5% 0.5W
3130▲	4822 116 52233	10k 5% 0.5W
3135	4822 116 52243	1k5 5% 0.5W
3136	4822 116 52257	22k 5% 0.5W
3137	4822 116 52284	47k 5% 0.5W
3140▲	4822 116 52283	4k7 5% 0.5W
3141	4822 116 52296	6k8 5% 0.5W
3143▲	4822 116 52263	2k7 5% 0.5W
3147▲	4822 116 52263	2k7 5% 0.5W
3151▲	4822 116 52256	2k2 5% 0.5W
3152▲	4822 116 52256	2k2 5% 0.5W
3153	4822 116 52207	1k2 5% 0.5W
3154	4822 116 52207	1k2 5% 0.5W
3155	4822 116 52277	39k 5% 0.5W
3156	4822 050 11002	1k 1% 0.4W
3157	4822 116 52226	560Ω 5% 0.5W
3158	4822 116 52285	470k 5% 0.5W
3159	4822 116 52285	470k 5% 0.5W
3160▲	4822 116 52269	3k3 5% 0.5W
3161	4822 116 52257	22k 5% 0.5W
3162▲	4822 116 52269	3k3 5% 0.5W
3163	4822 116 52257	22k 5% 0.5W
3164	4822 050 11002	1k 1% 0.4W
3165▲	4822 116 52283	4k7 5% 0.5W
3167	4822 116 52257	22k 5% 0.5W
3168	4822 116 52257	22k 5% 0.5W
3169▲	4822 116 52193	39Ω 5% 0.5W
3170▲	4822 116 52283	4k7 5% 0.5W
3171▲	4822 116 52283	4k7 5% 0.5W
3172	4822 116 52292	560k 5% 0.5W
3173	4822 116 52292	560k 5% 0.5W
3174	4822 116 52265	270k 5% 0.5W
3175	4822 116 52249	1k8 5% 0.5W
3176	4822 116 52249	1k8 5% 0.5W
3177▲	4822 116 52269	3k3 5% 0.5W
3178	4822 050 11002	1k 1% 0.4W
3179▲	4822 116 52233	10k 5% 0.5W
3180	4822 116 52271	33k 5% 0.5W
3185	4822 050 26808	6Ω8 1% 0.6W
3186	4822 050 26808	6Ω8 1% 0.6W
3189	4822 116 52304	82k 5% 0.5W
3190	4822 116 52276	3k9 5% 0.5W
3191	4822 116 52245	150k 5% 0.5W
3192	4822 116 52289	5k6 5% 0.5W
3193	4822 116 52289	5k6 5% 0.5W
3194	4822 116 52289	5k6 5% 0.5W
3195	4822 116 52213	180Ω 5% 0.5W
3199▲	4822 116 52269	3k3 5% 0.5W
3201	4822 116 52201	75Ω 5% 0.5W
3202	4822 050 11002	1k 1% 0.4W
3203	4822 116 52175	100Ω 5% 0.5W
3204	4822 050 11002	1k 1% 0.4W
3205	4822 050 11002	1k 1% 0.4W
3206	4822 116 52175	100Ω 5% 0.5W
3207	4822 116 52285	470k 5% 0.5W
3208	4822 116 52201	75Ω 5% 0.5W
3209▲	4822 116 52256	2k2 5% 0.5W
3210	4822 116 52201	75Ω 5% 0.5W
3211	4822 116 52258	220k 5% 0.5W
3212	4822 116 52175	100Ω 5% 0.5W
3213▲	4822 050 22702	2k7 1% 0.6W
3214	4822 116 52175	100Ω 5% 0.5W
3215	4822 116 52258	220k 5% 0.5W
3216▲	4822 050 22702	2k7 1% 0.6W
3220	4822 116 52284	47k 5% 0.5W
3229	4822 116 52234	100Ω 5% 0.5W
3231	4822 116 52234	100Ω 5% 0.5W
3233▲	4822 116 52233	10k 5% 0.5W
3235▲	4822 116 52233	10k 5% 0.5W
3236	4822 116 52234	100Ω 5% 0.5W
3238	4822 116 52234	100Ω 5% 0.5W
3239▲	4822 116 52283	4k7 5% 0.5W
3242	4822 116 52276	3k9 5% 0.5W
3244▲	4822 116 52233	10k 5% 0.5W
3245▲	4822 116 52283	4k7 5% 0.5W
3246	4822 116 52284	47k 5% 0.5W
3247▲	4822 116 52233	10k 5% 0.5W
3248	4822 050 11002	1k 1% 0.4W
3249	4822 116 52207	1k2 5% 0.5W
3250▲	4822 116 52283	4k7 5% 0.5W
3251	4822 116 52257	22k 5% 0.5W
3252	4822 116 52289	5k6 5% 0.5W
3253	4822 116 52226	560Ω 5% 0.5W
3254	4822 116 52289	5k6 5% 0.5W
3255	4822 116 52226	560Ω 5% 0.5W
3256	4822 116 52271	33k 5% 0.5W
3257	4822 116 52284	47k 5% 0.5W
3258	4822 116 52289	5k6 5% 0.5W
3260	4822 116 52211	150Ω 5% 0.5W
3262	4822 116 52271	33k 5% 0.5W
3263	4822 116 52284	47k 5% 0.5W
3264	4822 116 52289	5k6 5% 0.5W
3265	4822 116 52211	150Ω 5% 0.5W
3266▲	4822 116 52219	330Ω 5% 0.5W
3267▲	4822 116 52219	330Ω 5% 0.5W
3268▲	4822 050 21501	150Ω 1% 0.6W
3269▲	4822 050 21501	150Ω 1% 0.6W
3270	4822 116 52234	100Ω 5% 0.5W
3271▲	4822 116 52283	4k7 5% 0.5W
3273	4822 116 52257	22k 5% 0.5W
3275	4822 050 11002	1k 1% 0.4W
3276	4822 116 52226	560Ω 5% 0.5W
3277	4822 050 11002	1k 1% 0.4W
3278	4822 116 52226	560Ω 5% 0.5W
3283	4822 116 52296	6k8 5% 0.5W
3285	4822 116 52213	180Ω 5% 0.5W
3286▲	4822 116 52199	68Ω 5% 0.5W
3287▲	4822 116 52283	4k7 5% 0.5W
3289▲	4822 116 52283	4k7 5% 0.5W
3291▲	4822 116 52283	4k7 5% 0.5W
3294	4822 116 52291	56k 5% 0.5W
3295	4822 116 52271	33k 5% 0.5W
3296	4822 116 52291	56k 5% 0.5W
3297	4822 116 52271	33k 5% 0.5W
3300	4822 116 52238	12k 5% 0.5W
3311▲	4822 116 52233	10k 5% 0.5W
3315	4822 116 52175	100Ω 5% 0.5W
3316	4822 116 52226	560Ω 5% 0.5W
3320▲	4822 116 52283	4k7 5% 0.5W
3321	4822 116 52257	22k 5% 0.5W
3325	4822 116 52257	22k 5% 0.5W
3597	4822 116 52244	15k 5% 0.5W
3597	4822 116 52271	33k 5% 0.5W
3597	4822 116 52277	39k 5% 0.5W
3599▲	4822 116 52272	330k 5% 0.5W
3599	4822 116 52284	47k 5% 0.5W
3801	4822 100 11319	4k7 30% lin 0.1W
3803	4822 116 52243	1k5 5% 0.5W
3804	4822 050 11002	1k 1% 0.4W
3807	4822 116 52289	5k6 5% 0.5W
3808▲	4822 052 10478	4Ω7 5% 0.33W
3810	4822 116 52175	100Ω 5% 0.5W
3811	4822 116 52175	100Ω 5% 0.5W
3820	4822 050 11002	1k 1% 0.4W
3820	4822 116 52228	680Ω 5% 0.5W
3821	4822 050 11002	1k 1% 0.4W
3822	4822 116 52207	1k2 5% 0.5W
3823▲	4822 116 52233	10k 5% 0.5W
3824▲	4822 116 52233	10k 5% 0.5W
3825	4822 050 11002	1k 1% 0.4W
3826	4822 116 52285	470k 5% 0.5W
3827	4822 116 52222	390Ω 5% 0.5W
3828▲	4822 116 52256	2k2 5% 0.5W
3829	4822 050 11002	1k 1% 0.4W

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5200	4822 157 50964	100µH
5201	4822 157 50964	100µH
5801	4822 157 70467	1500µH

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6101	4822 130 34488	BZX79-C11
6140	4822 130 34278	BZX79-C6V8
6150▲	4822 130 30621	1N4148
6190▲	4822 130 30621	1N4148
6191	4822 130 34174	BZX79-C4V7
6192▲	4822 130 30621	1N4148
6193	4822 130 34174	BZX79-C4V7
6194▲	4822 130 30621	1N4148
6195▲	4822 130 30621	1N4148
6196▲	4822 130 30621	1N4148
6197▲	4822 130 30621	1N4148
6198	4822 130 34167	BZX79-C6V2
6201	4822 130 34382	BZX79-C8V2
6202	4822 130 34382	BZX79-C8V2
6203	4822 130 34382	BZX79-C8V2
6204	4822 130 34382	BZX79-C8V2
6205	4822 130 34382	BZX79-C8V2
6206	4822 130 34382	BZX79-C8V2
6207	4822 130 34382	BZX79-C8V2
6208	4822 130 34382	BZX79-C8V2
6222	4822 130 34382	BZX79-C8V2
6275▲	4822 130 30621	1N4148
6276▲	4822 130 30621	1N4148
6295	4822 130 34174	BZX79-C4V7
6296▲	4822 130 30621	1N4148
6298▲	4822 130 30621	1N4148
6823▲	4822 130 30621	1N4148
6828	5322 130 31504	BZX79-C3V3

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7105	4822 130 40938	BC548
7106	4822 130 40941	BC558
7110	4822 130 40938	BC548
7115	4822 130 40941	BC558
7120	4822 130 40938	BC548
7125	4822 130 40941	BC558
7130	4822 130 40941	BC558
7135	4822 130 40938	BC548
7140	4822 130 40938	BC548
7150	4822 130 40938	BC548
7151	4822 130 40938	BC548
7152	4822 130 40938	BC548
7190	4822 209 32531	TDA7056A/N2
7191	4822 209 32531	TDA7056A/N2
7192	4822 209 32531	TDA7056A/N2
7193	4822 130 63427	BD534FI
7194	4822 130 40938	BC548
7195	4822 209 70672	LM358N
7205	4822 130 40938	BC548
7208	4822 130 40938	BC548
7219▲	4822 130 44197	BC558B
7240	5322 209 10576	HEF4053BP
7250	4822 130 40938	BC548
7260	4822 130 40938	BC548
7261	4822 130 40941	BC558
7265	4822 130 40938	BC548
7266	4822 130 40941	BC558
7270	5322 209 10576	HEF4053BP
7271	4822 130 40938	BC548
7275	4822 130 40938	BC548
7280	4822 130 40941	BC558
7285	4822 130 40938	BC548
7291	4822 130 40941	BC558
7315	4822 130 40938	BC548
7320	4822 130 40938	BC548
7325	4822 130 40941	BC558
7800	4822 209 32863	TDA9840/V1
7820	4822 130 40938	BC548
7821	4822 130 40941	BC558
7824	4822 130 40938	BC548
7825	4822 130 40941	BC558
7827	5322 209 10421	HEF4094BP
7828	4822 130 40941	BC558
7829	4822 130 40938	BC548

Incredible stereo panel

Various

	4822 264 40207	3P male WTB
	4822 265 30378	4P male WTB
1140	4822 212 31645	Incredible stereo panel

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2200	5322 122 32311	470pF 10% 100V
2201	4822 126 12639	2.2nF 20%
2202	5322 122 32491	1nF 20% 100V
2203	4822 126 12643	22nF 20% 50V
2204	4822 124 41596	22µF 20% 50V
2205	4822 126 12642	10nF 20% 50V
2300	4822 126 12642	10nF 20% 50V
2301	4822 124 41596	22µF 20% 50V
2302	4822 121 51256	39nF 10% 50V
2304	4822 124 41596	22µF 20% 50V
2305	4822 121 51256	39nF 10% 50V
2400	5322 122 32311	470pF 10% 100V
2401	4822 126 12639	2.2nF 20%
2402	5322 122 32491	1nF 20% 100V
2403	4822 126 12643	22nF 20% 50V
2404	4822 124 41596	22µF 20% 50V

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3001▲	4822 116 52233	10k 5% 0.5W
3002	4822 116 52257	22k 5% 0.5W
3005	4822 116 52271	33k 5% 0.5W
3100	4822 116 52291	56k 5% 0.5W
3101▲	4822 116 52256	2k2 5% 0.5W
3102▲	4822 116 52256	2k2 5% 0.5W
3103	4822 116 52271	33k 5% 0.5W
3104	4822 116 52291	56k 5% 0.5W
3106	4822 116 52291	56k 5% 0.5W
3107	4822 116 52271	33k 5% 0.5W
3108	4822 116 52291	56k 5% 0.5W
3109	4822 116 52271	33k 5% 0.5W
3200▲	4822 116 52233	10k 5% 0.5W
3201▲	4822 116 52233	10k 5% 0.5W
3202▲	4822 116 52233	10k 5% 0.5W
3203▲	4822 116 52256	2k2 5% 0.5W
3204	4822 116 52243	1k5 5% 0.5W
3205▲	4822 116 52269	3k3 5% 0.5W
3206▲	4822 116 52233	10k 5% 0.5W
3207	4822 050 11002	1k 1% 0.4W
3208▲	4822 116 52233	10k 5% 0.5W
3209▲	4822 116 52233	10k 5% 0.5W
3210	4822 116 52175	100Ω 5% 0.5W
3300▲	4822 116 52263	2k7 5% 0.5W
3301	4822 116 52228	680Ω 5% 0.5W
3302	4822 050 11002	1k 1% 0.4W
3303▲	4822 116 52263	2k7 5% 0.5W
3304	4822 116 52228	680Ω 5% 0.5W
3305	4822 050 11002	1k 1% 0.4W
3400▲	4822 116 52233	10k 5% 0.5W
3401▲	4822 116 52233	10k 5% 0.5W
3402▲	4822 116 52233	10k 5% 0.5W
3403▲	4822 116 52256	2k2 5% 0.5W
3404	4822 116 52243	1k5 5% 0.5W
3405▲	4822 116 52269	3k3 5% 0.5W
3406▲	4822 116 52233	10k 5% 0.5W
3407	4822 050 11002	1k 1% 0.4W
3408▲	4822 116 52233	10k 5% 0.5W
3409▲	4822 116 52233	10k 5% 0.5W
3410	4822 116 52175	100Ω 5% 0.5W

⊗ ▭

7001	4822 130 40938	BC548
7100	5322 209 10576	HEF4053BP
7101	4822 130 40938	BC548
7102	4822 130 40938	BC548
7200	4822 209 80587	LM324N
7300▲	4822 209 83163	LM833N
7400	5322 209 10576	HEF4053BP

Multisound panel [D]

Various

	4822 212 31346	Multisound panel
▲	4822 265 20366	1 pin header 2.35 mm
	4822 265 40421	6 pins male WTB
	4822 165 30378	4 pins male WTB
	4822 266 30276	4 pins female BTB (AU)
	4822 265 40471	8 pins female BTB (AU)
1101	4822 242 72547	5.5MHz
1102	4822 242 71713	6.0MHz
1103	4822 242 72057	6.5MHz
1104	4822 242 71725	4.5MHz

⊣⊢

2105	4822 122 33293	100pF 5% 50V
2106	5322 122 32491	1nF 20% 100V
2107	4822 124 40242	1µF 20% 63V
2108	4822 121 43714	820nF 5% 50V
2108	4822 121 51436	820nF 10% 63V
2111	4822 121 51231	820pF 1% 400V
2111	4822 126 13173	820pF 5% 50V
2112	4822 126 12788	33pF 5% 50V
2114	5322 122 32491	1nF 20% 100V
2115	5322 122 32491	1nF 20% 100V
2116	5322 122 32491	1nF 20% 100V
2117	5322 122 32491	1nF 20% 100V
2125	4822 126 12643	22nF 20% 50V
2132	4822 124 40248	10µF 20% 63V
2133	4822 126 12643	22nF 20% 50V
2140	5322 122 32311	470pF 10% 100V
2154	4822 126 12643	22nF 20% 50V
2160	5322 122 32491	1nF 20% 100V

▭

3101▲	4822 116 52269	3k3 5% 0.5W
3102	4822 116 52289	5k6 5% 0.5W
3103	4822 116 52289	5k6 5% 0.5W
3104	4822 116 52289	5k6 5% 0.5W
3105	4822 116 52289	5k6 5% 0.5W
3106	4822 116 52244	15k 5% 0.5W
3107	4822 116 52226	560Ω 5% 0.5W
3108	4822 116 52225	510Ω 5% 0.5W
3109	4822 116 52245	150k 5% 0.5W
3110	4822 116 52245	150k 5% 0.5W
3111	4822 116 52273	3k6 5% 0.5W
3112▲	4822 052 10129	12Ω 5% 0.33W
3114	4822 116 52233	10k 5% 0.5W
3115▲	4822 116 52256	2k2 5% 0.5W
3116▲	4822 116 52283	4k7 5% 0.5W
3117	4822 116 52226	560Ω 5% 0.5W
3118	4822 116 52292	560k 5% 0.5W
3120▲	4822 116 52269	3k3 5% 0.5W
3150▲	4822 116 52215	220Ω 5% 0.5W
3151	4822 116 52224	470Ω 5% 0.5W
3152▲	4822 116 52219	330Ω 5% 0.5W
3152	4822 116 52224	470Ω 5% 0.5W
3153▲	4822 116 52219	330Ω 5% 0.5W
3154	4822 116 52226	560Ω 5% 0.5W
3155	4822 116 52291	56k 5% 0.5W
3156	4822 116 52244	15k 5% 0.5W
3160	4822 116 52245	150k 5% 0.5W

∿

5105	4822 157 71039	120µH
5106	4822 157 71113	10µH 10%

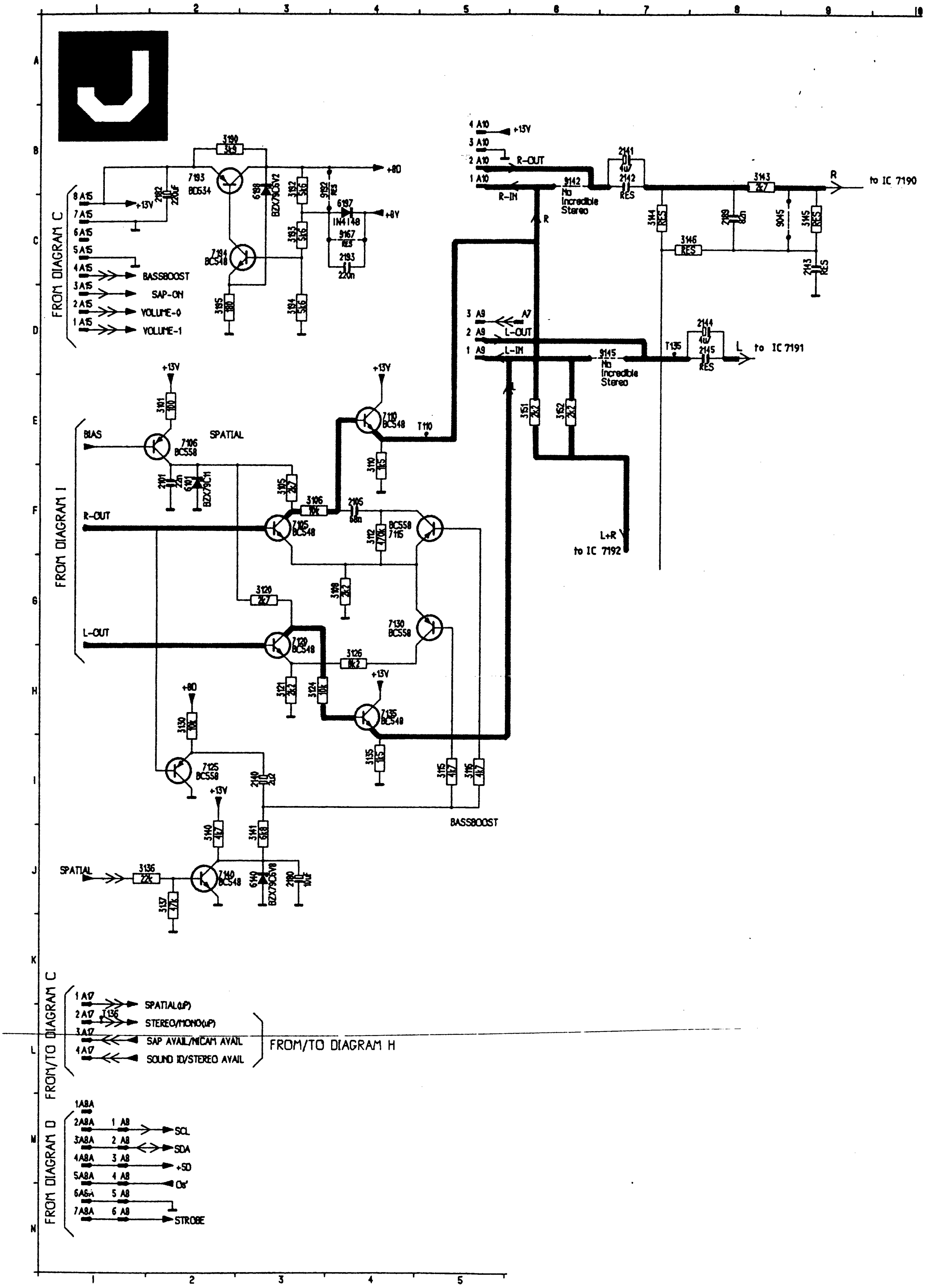
▶|

6101▲	4822 130 30621	1N4148
6102▲	4822 130 30621	1N4148
6103▲	4822 130 30621	1N4148
6104▲	4822 130 30621	1N4148
6106▲	5322 130 80617	BAT81
6107▲	5322 130 80617	BAT81
6124	4822 130 34233	BZX79-C5V1
6132	4822 130 34379	BZX79-C27
6133	4822 130 34379	BZX79-C27

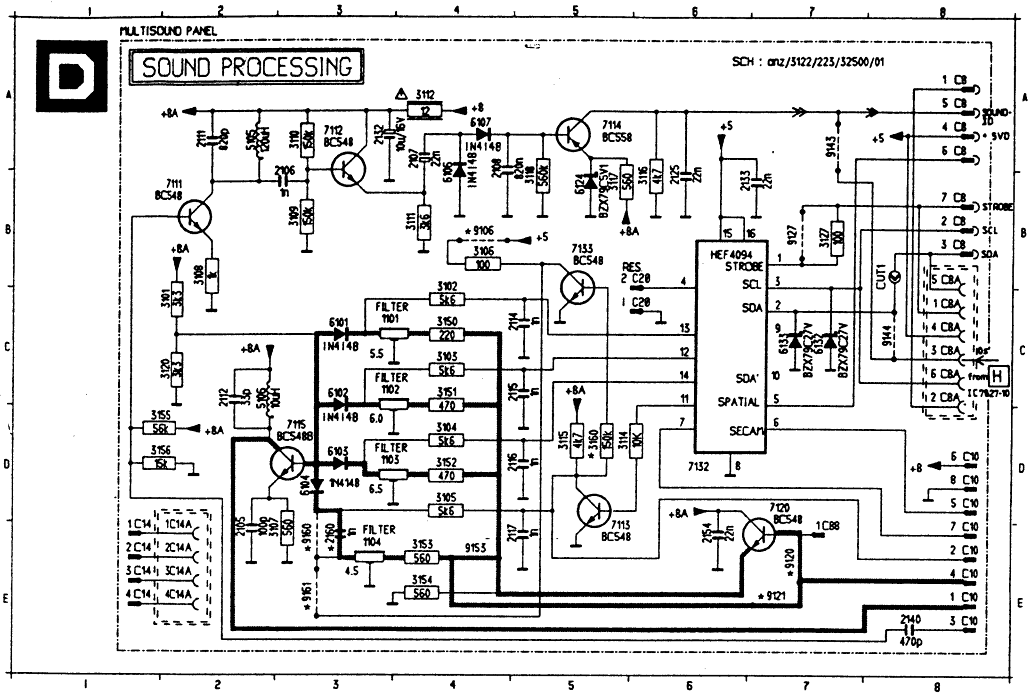
⊗ ▭

7111	4822 130 40937	BC548B
7112	4822 130 40938	BC548
7113	4822 130 40938	BC548
7114	4822 130 40941	BC558
7115	4822 130 40937	BC548B
7120	4822 130 40938	BC548
7132	5322 209 10421	HEF4094BP
7133	4822 130 44196	BC548C

Amplification part (Anubis S BB)


J
FROM DIAGRAM C
8 A15
7 A15
6 A15
5 A15
4 A15
3 A15
2 A15
1 A15
+13V
BASSBOOST
SAP-ON
VOLUME-0
VOLUME-1
3190 3k9
7193 BD534
6198 BZX79C6V2
2192 220uF
3192 5k6
9192 RES
6197 1N4148
9167 RES
2193 220n
+8V
+8D
3193 5k6
7194 BC548
3195 180
3194 5k6
4 A10 +13V
3 A10
2 A10 R-OUT
1 A10 R-IN
9142 No Incredible Stereo
2141 4u7
2142 RES
3143 2k7
R to IC 7190
3144 RES
2189 82n
9045
3145 RES
3146 RES
2143 RES
3 A9 A7
2 A9 L-OUT
1 A9 L-IN
9145 No Incredible Stereo
T135
2144 4u7
2145 RES
L to IC 7191
3151 2k2
3152 2k2
L+R to IC 7192
FROM DIAGRAM I
BIAS
SPATIAL
+13V
3101 100
7106 BC558
2101 22n
6101 BZX79C11
R-OUT
L-OUT
7110 BC548
T110
3110 1k5
3105 2k7
3106 18k
2105 68n
7105 BC548
3112 470k
BC558 7115
3108 2k7
3120 2k7
7120 BC548
7130 BC558
3126 8k2
3121 2k2
3124 10k
7135 BC548
3135 1k5
+8D
3130 10k
7125 BC558
2140 2u2
3115 4k7
3116 4k7
BASSBOOST
3140 4k7
3141 5k8
SPATIAL
3136 22k
7140 BC548
3137 47k
6140 BZX79C6V8
2180 10uF
FROM/TO DIAGRAM C
1 A17 SPATIAL(uP)
2 A17 T136 STEREO/MONO(uP)
3 A17 SAP AVAIL/NICAM AVAIL
4 A17 SOUND ID/STEREO AVAIL
FROM/TO DIAGRAM H
FROM DIAGRAM D
1A8A
2A8A 1 A8 SCL
3A8A 2 A8 SDA
4A8A 3 A8 +5D
5A8A 4 A8 Cs'
6A8A 5 A8
7A8A 6 A8 STROBE
1 2 3 4 5 6 7 8 9 10
A B C D E F G H I J K L M N

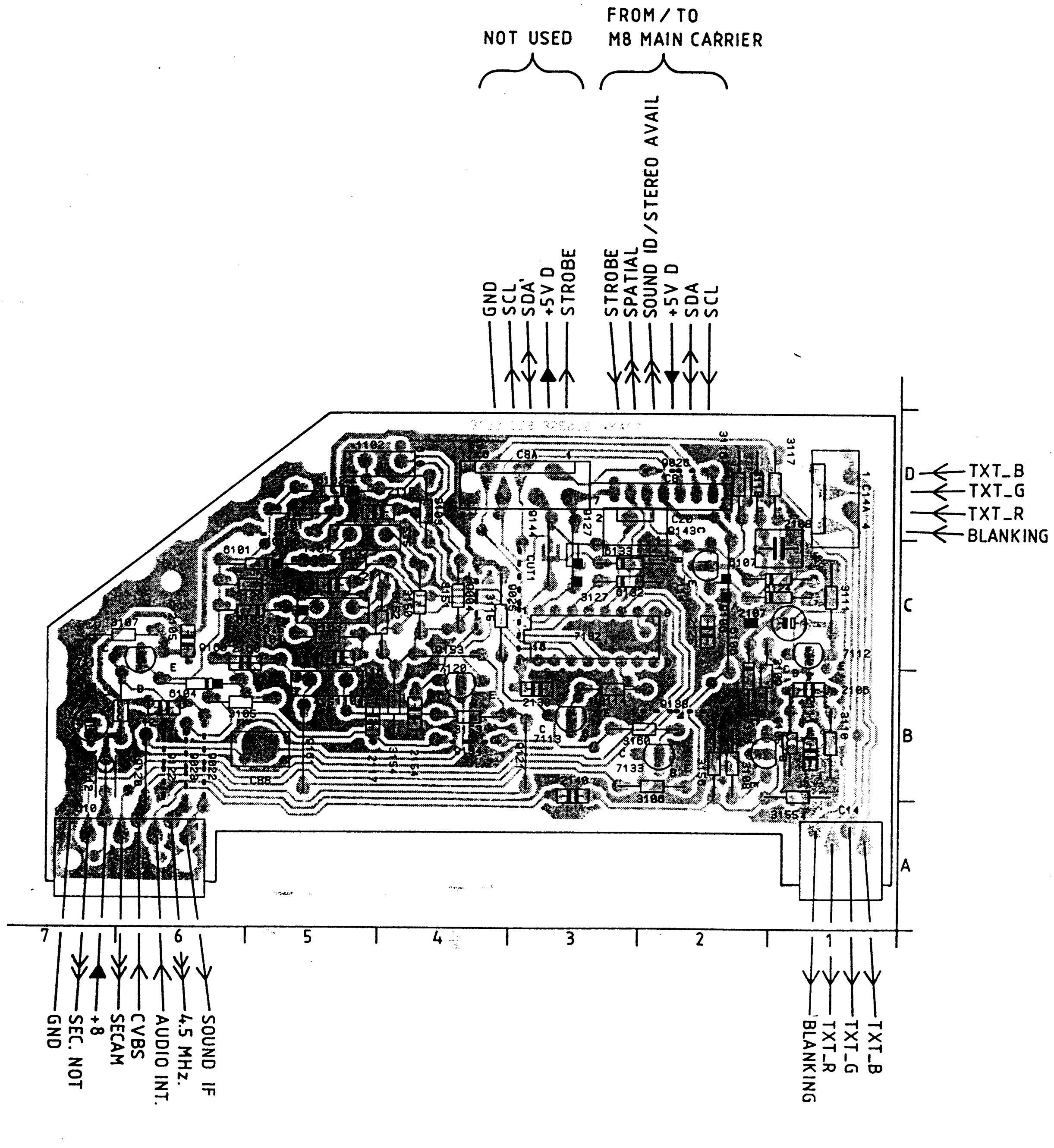
Multisound panel / Multi sonido (Anubis S BB)



MULTISOUND PANEL
D
SOUND PROCESSING
SCH : anz/3122/223/32500/01
HEF4094
7132
STROBE
SCL
SDA
SDA'
SPATIAL
SECAM
FILTER
1101
1102
1103
1104
7111 BC548
7112 BC548
7114 BC558
7133 BC548
7113 BC548
7115 BC548B
7120 BC548
1N4148
BZX79C5V1
BZX79C27V
+8A
+8
+5
RES
2 C20
1 C20
1 C8
5 C8
4 C8
6 C8
7 C8
2 C8
3 C8
SOUND-ID
+5VD
STROBE
SCL
SDA
CUT1
5 C8A
1 C8A
4 C8A
3 C8A
6 C8A
2 C8A
from IC7127-10
6 C10
8 C10
5 C10
7 C10
2 C10
4 C10
1 C10
3 C10
1 C14
2 C14
3 C14
4 C14
1C14A
2C14A
3C14A
4C14A
1C88
2140 470p

1101	C 3			7112	A 3
1102	C 3			7113	E 6
1103	D 3			7114	A 5
1104	E 3			7115	D 3
2105	E 2			7120	D 7
2106	B 3			7132	D 6
2107	A 4			7133	B 5
2108	A 4			9106	B 4
2111	A 2			9120	E 7
2112	C 2			9121	E 7
2114	C 5			9127	B 7
2115	C 5			9143	A 7
2116	D 5			9144	C 8
2117	E 5			9153	E 4
2125	B 6			9160	E 3
2132	A 3			9161	E 3
2133	B 6			C8	B 8
2140	E 8			C8	B 8
2154	E 6			C8	B 8
2160	E 3			C8	A 8
3101	C 2			C8	A 8
3102	C 4			C8	A 8
3103	C 4			C8A	C 8
3104	D 4			C8A	B 8
3105	D 4			C8A	C 8
3106	B 4			C8A	C 8
3107	E 3			C8A	C 8
3108	B 2			C8A	E 8
3109	B 3			C10	E 8
3110	A 3			C10	E 8
3111	B 4			C10	E 8
3112	A 4			C10	E 8
3114	D 5			C10	D 8
3115	D 5			C10	D 8
3116	B 6			C10	D 8
3117	B 5			C14	E 1
3118	B 5			C14	E 1
3120	C 2			C14	E 1
3127	B 7			C14	E 1
3150	C 4			C14A	E 2
3151	C 4			C14A	E 2
3152	D 4			C14A	E 2
3153	E 4			C14A	E 2
3154	E 4			C20	C 6
3155	D 2			C20	B 6
3156	D 2			C88	E 7
3160	D 5			CUT1	B 8
5105	A 2				
5106	C 2				
6101	C 3				
6102	C 3				
6103	D 3				
6104	D 3				
6106	B 4				
6107	A 4				
6124	B 5				
6132	C 7				
6133	C 7				
7111	B 2				

1101	D4	7133	B2
1102	D4	9004	C4
1103	C5	9022	B6
1104	C5	9023	B6
2105	C6	9025	C3
2106	C1	9026	D2
2107	C1	9106	C2
2108	D1	9120	B6
2111	B1	9121	B3
2112	B6	9122	B6
2114	C5	9127	D3
2115	D4	9134	B4
2116	C5	9136	D5
2117	B4	9138	B2
2125	C2	9143	D2
2132	B6	9144	D3
2133	C3	9153	C4
2140	B3	9160	C5
2154	B4	9161	B5
2160	C5	C8	D2
3101	D5	C8A	D3
3102	C4	C10	A6
3103	D4	C14	A1
3104	C5	C14A	D1
3105	B5	C20	D2
3106	B2	C88	B5
3107	C6		
3108	B2		
3109	C1		
3110	B1		
3111	C1		
3112	B6		
3114	C2		
3115	C3		
3116	D2		
3117	D1		
3118	D1		
3120	C5		
3127	D3		
3150	C4		
3151	C4		
3152	C4		
3153	B4		
3154	B4		
3155	B1		
3156	B2		
3160	B2		
5105	B1		
5106	B6		
6101	C5		
6102	D5		
6103	C5		
6104	C6		
6106	C1		
6107	C1		
6124	C1		
6132	C2		
6133	C2		
7111	B1		
7112	C1		
7113	B3		
7114	C2		
7115	C6		
7120	C4		
7132	C3		



NOT USED
FROM / TO M8 MAIN CARRIER
GND
SCL
SDA'
+5V D
STROBE
STROBE
SPATIAL
SOUND ID/STEREO AVAIL
+5V D
SDA
SCL
TXT_B
TXT_G
TXT_R
BLANKING
GND
SEC. NOT
+8
SECAM
CVBS
AUDIO INT.
4.5 MHz.
SOUND IF
BLANKING
TXT_R
TXT_G
TXT_B
A
B
C
D
7
6
5
4
3
2
1

Colour television

Service
Service
Service

Anubis S

BB 94.03

Service Information

25" Anubis S BB sets 110° picture tube (for -/93)
29" Anubis S BB (all versions)

In this service information all relevant adaptions are published for the -/93 25" Anubis S BB sets with 110° picture tube and all versions 29" Anubis S BB.
The following is published in this service information:

- Adapted PWB's for the main carrier and the mains input and power supply control panel for the 25" and the 29". Further a new PWB for the S-correction panel of the 25" 110°. The spare parts list of these panels and the adapted large signal diagram (diagram AA) is published.
- Adapted PWB for the new combined CRT panel for the 25" and 29" Anubis S BB. Also the spare parts list of this adapted CRT panel and the adapted diagram EE is given.
- A description of the 50/60 Hz identification circuitry for the 25" 110° Anubis S BB.
- A description of the dynamic S circuitry for the 25" 110° Anubis S BB.

Description of the 50/60 Hz identification circuitry for the 25" Anubis S BB 110° picture tube.

For 110° picture tubes used in 25" -/93 a 50/60 Hz identification circuitry is required as IC7225 does not have a 50/60 Hz identification pin. This 50/60 Hz identification circuitry is used for adapting the amount of E/W correction for the different pin-cushion effect for 50/60 Hz frames.

Operation:
HORZ_PULSE is a 15625 Hz pulse for 50 Hz frame, or a 15750 Hz pulse for 60 Hz frame. This HORZ_PULSE signal is coming from pin 26 of the μC OSD generator.
VERT_PULSE is a 50 Hz pulse for 50 Hz frame, or a 60 Hz pulse for 60 Hz frame. This VERT_PULSE signal is coming from pin 27 of the μC OSD generator. The collector of TS7734 is "high" in case the frame starts again.
Counter IC7730 is a HEF4040BP which counts the pulses at the CP (clock input) input pin 10 and gives a pulse at output pins after 2-4-8-16-32-64 etc pulses. The counting starts again when pin 11 MR (master reset) becomes "high".
In this application the horizontal pulses at the CP input pin 10 IC7730 are counted to a quantity of 272 pulses via output pins 3 and 12 (256 + 16 = 272; 256 pulses are counted at output pin 3, and 16 pulses are counted at output pin 12). The MR is connected to the VERT_PULSE, so IC7730 starts counting again at the beginning of a new 50 or 60 Hz frame.
Dual D-flip flop IC7731 is a HEF4013BP which clocks through the data at pin D (resp. 5 and 9) to the output pins (pin 1 positive output and pin 12 negative output) at the rising edge of the clock input CP (resp. pin 3 and 11) depending on the SD (set direct) and CD (clear direct) pins:

- When the set direct (SD) pins 6 and 8 are "high", the positive output pins are "high" and the negative output pins are "low" independent from the data at pin 5 resp 9 (only as long as the CD is "low").
  In this application this feature is not used as both pins 6 and 8 are shorted.
- When the clear direct (CD) pins 4 and 10 are "high", the positive output pins are "low" and the negative output pins are "high" independent from the data at pin 5 resp 9 (only as long as SD is "low").
  In this application this feature is only used for pin 4 IC7731/2A (and not for IC7731/2B as pin 10 is shorted).
- At the moment both the SD and CD are "high", this is a conflict status. In that case both the positive and the negative output will be made "high" independent from the data at pin 5 resp 9.
- Only in case both the SD and the CD are "low", the data at the data pins 5 and 9 can be clocked through to the positive and negative output pins.

So in this application:

- IC7731/2A is configured for clocking through the data at pin 5 to the positive output pin 1 at the rising edge of pin 3 only as long as pin 4 is "low".
- IC7731/2B is configured for clocking through the data at pin 9 to the negative output pin 12 at the rising edge of pin 11.

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At 50 Hz reception (see Fig. 1) each frame is 312.5 lines (15625 Hz for 50 frames), which is more then 272 pulses. On the moment the counter has passed 272 both output pins 3 and 12 of counter IC7730 are "high" and so TS7332 blocks. As a result the collector of TS7332 thus pin 3 IC7731/2A becomes "low". At the rising edge of pin 3 (at pulse 288), the data at pin 5 IC7332/2A (+5V) is clocked to the positive output pin 1 IC7731/2A (so making pin 1 "high") as long as pin 4 remains "low". So in case of 50 Hz reception output pin 1 is "high" from pulse 288 to the end of a frame because:

- pin 3 IC7731/2A is "low" from pulse 272 to 288, giving a rising edge at pulse 288 (pin 3 is also "low" from pulse 304 to 312 giving a rising edge at pulse 312, but this is not important as by then pin 5 is already clocked to pin 1).
- pin 4 IC7731/2A is always "low" until the voltage at pin 4 across the RC network 3734/2734 has become +5V at the end of the frame. On the moment pin 4 becomes +5V, IC7731/2A is resetted, enabling 50/60 Hz detection for every frame again and again.

The "high" output pin 1 IC7731/2A is fed to input pin 9 IC7731/2B and is inverted clocked through to pin 12 at the rising edge of pin 11 (making output pin 12 IC7731/2B "low").
As a result pin 12 IC7731/2B becomes "low" at the end of the frame when a 50 Hz frame is detected for the first time. After that pin 12 will remain "low" until a 60 Hz frame is counted.

At 60 Hz reception each frame is 262.5 lines (15750 Hz for 60 frames), which is less then 272 pulses. In that case both output pins 3 and 12 of counter IC7730 will never become "high" any more at the same time (also not at the end of the frame). As a result TS7332 always conducts and so the collector of TS7332 thus pin 3 IC7731/2A always remains "high".
The data at pin 5 IC7731/2A (+5V) is only "flip flopped" to output pin 1 IC7731/2A in case of a rising edge at pin 3 and as long as pin 4 is "low". As pin 3 is constantly "high", there will never be a rising edge, so in case of 60 Hz reception pin 1 IC7731/2A always remain "low", so pin 12 IC7731/2B always remain "high" (also at the end of a frame).

For 50 Hz pin 12 IC7731/2B is "low", so TS7733 is not conducting. This results in a less modified E/W modulation.
For 60 Hz pin 12 is always "high", so TS7733 conducts constantly, shorting R3474 in the E/W modulator. This modifies the E/W modulation by changing the current.

Description of the dynamic S circuitry for the 25" Anubis S BB 110° picture tube.

This separate panel is only needed for the 25" Anubis S BB sets with 110° picture tube. This panel is used for reducing the pin-cushion effect within the picture content (every line) (this can not be realised via the E/W modulator as these modulator takes care of the outline of each frame).

The dynamic S panel consists of the S-correction capacitor C2490 and an auto-transformer. The panel is inserted at the position and instead of jumper 9455. For every line (50 or 60 Hz) a dynamic S correction is modulated on the horizontal deflection to achieve a good linear horizontal scan.

Finally, to correct the 4 corners from bending inwards D6471 and 6473 with R3471 and 3473 are added (only for 25" Anubis S BB 110° picture tube). This circuit is called the higher order S-correction circuitry.

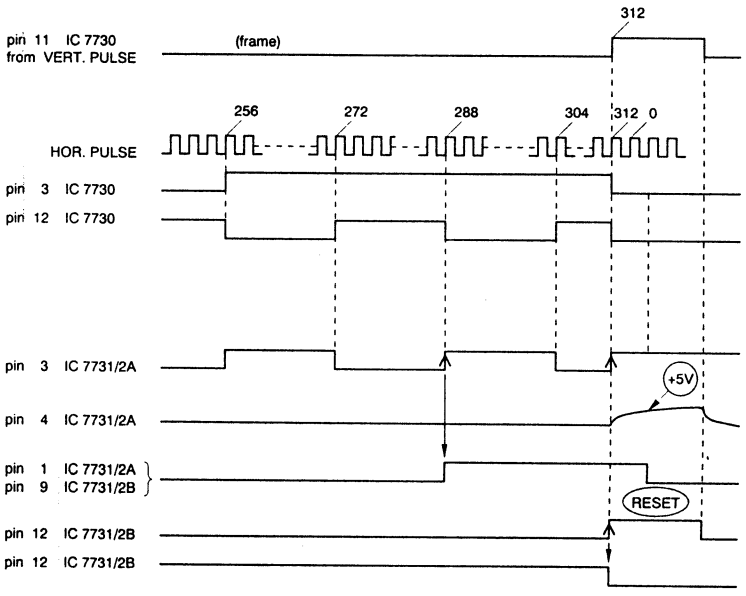
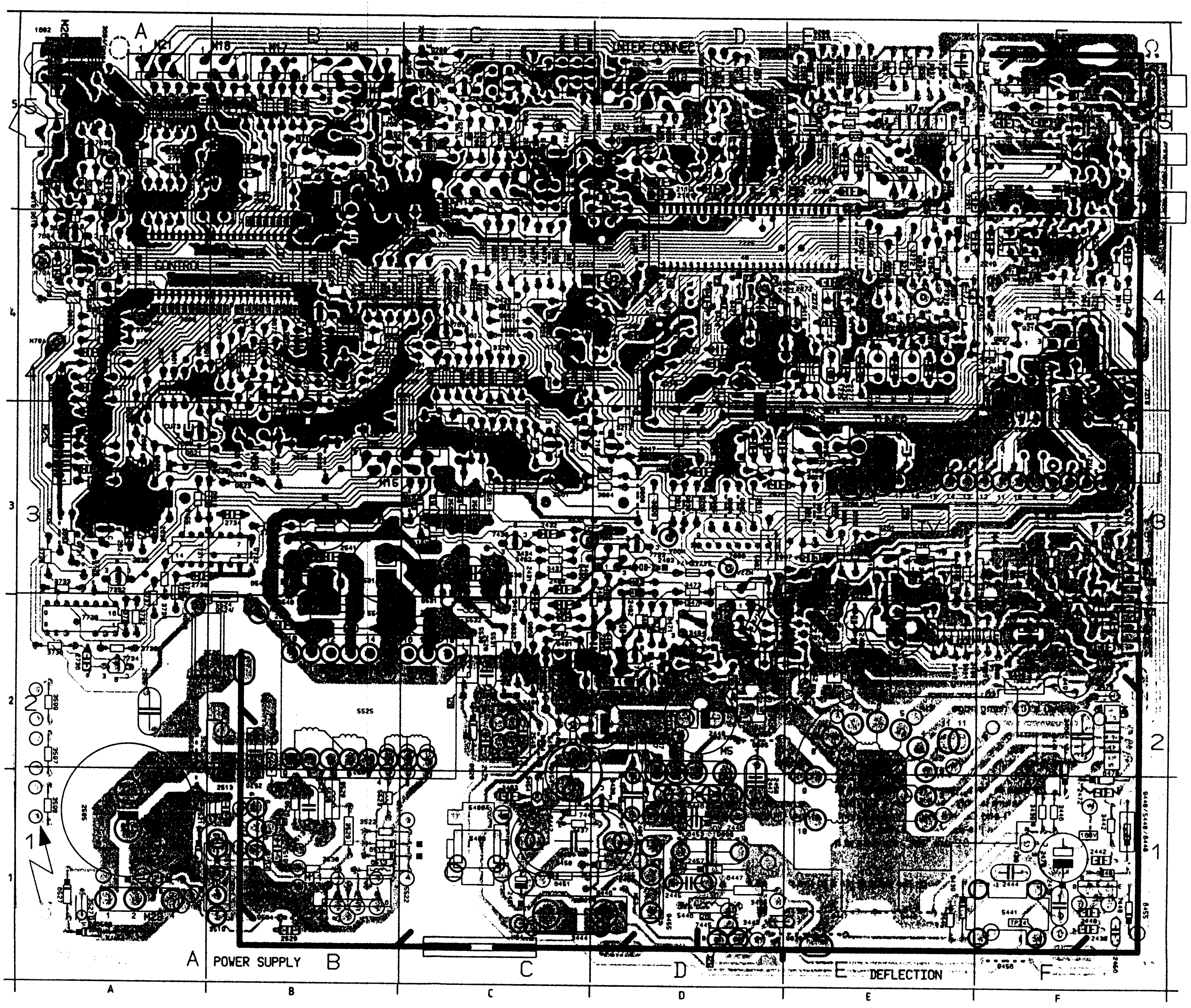


Fig. 1 Figures at 1st time 50Hz detection

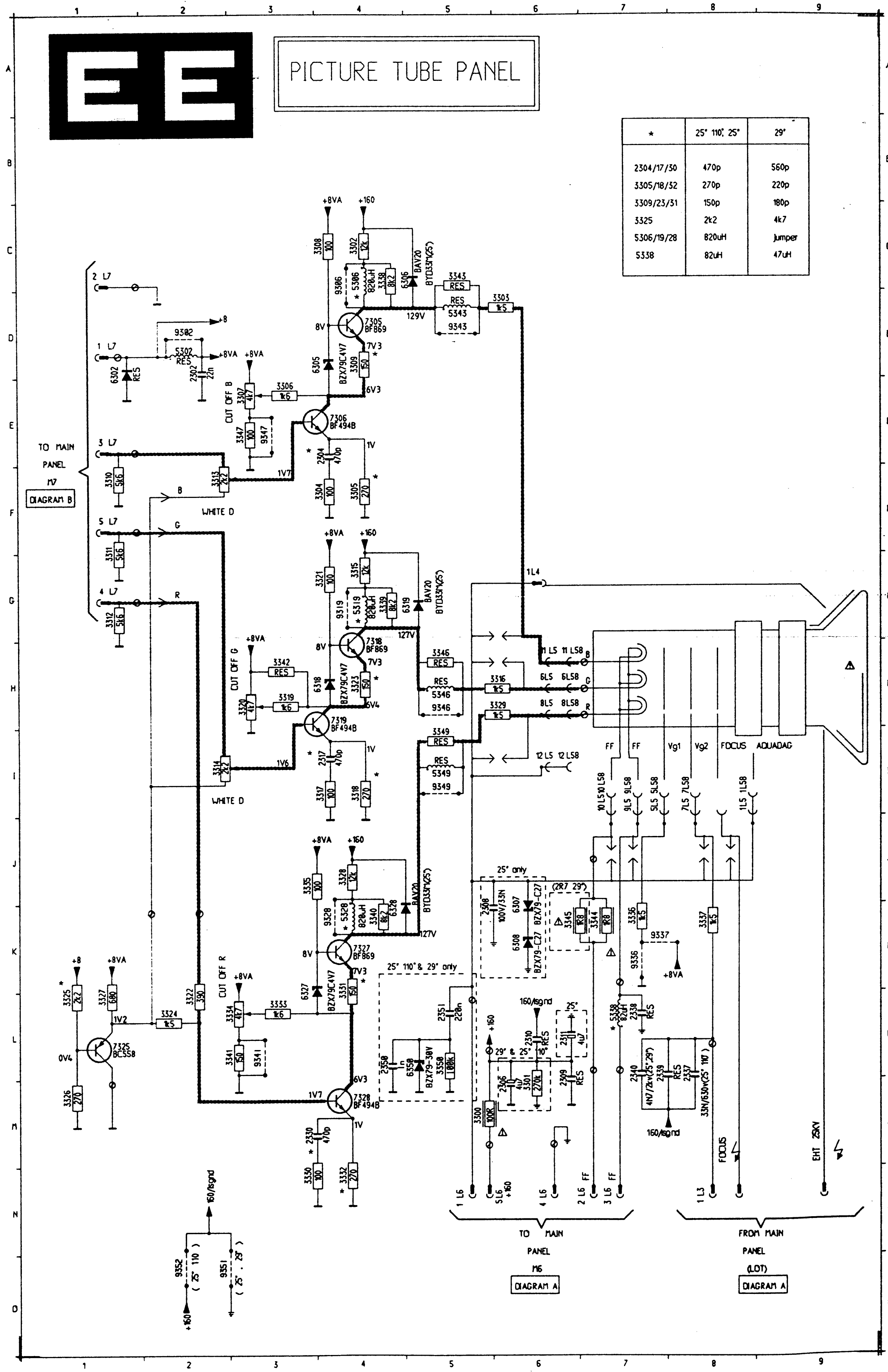
CL 46532086/015
211094

Main carrier 25" and 29" Anubis S BB (Copper side)

1000	F3
1015	D4
1105	C5
1106	C5
1204	C5
1206	C5
1207	C5
1208	C5
1275	E4
1277	E4
1278	E4
1279	E4
1449	F2
1540	B3
1602	A5
1630	A4
2001	D3
2002	F4
2007	E3
2008	F4
2009	F4
2010	F4
2011	F4
2016	D3
2017	D3
2026	D3
2027	D3
2101	D5
2102	D5
2103	D5
2104	D4
2112	D5
2119	C5
2123	D5
2138	E5
2200	C5
2208	D5
2212	E5
2213	D4
2219	D5
2220	D5
2221	D5
2222	D4
2223	C4
2224	D5
2225	D5
2228	D5
2236	F5
2243	F5
2245	F5
2246	F5
2248	E4
2249	F4
2251	E5
2253	F4
2254	F4
2256	F4
2257	F4
2260	C5
2261	D4
2262	F4
2264	C4
2265	D4
2266	D5
2272	E4
2273	E4
2275	E4
2277	E4
2278	E4
2279	E4
2280	E5
2281	E5
2282	D5
2283	E5
2284	E5
2285	E5
2401	F2
2402	F3
2403	F2
2404	E2
2405	E2
2414	F2
2415	F3
2416	F3
2421	D4
2422	D4
2423	D4
2424	D4
2425	E4
2426	D4
2427	D4
2428	F4
2431	C2
2432	C3
2438	F1
2439	F1
2440	F1
2441	E2
2442	F1
2443	D3
2444	F1
2445	D1
2446	D1
2447	D2
2448	D2
2449	F2
2450	C1
2451	C1
2452	D2
2453	F2
2454	D2
2455	C1
2456	F1
2457	D1
2458	D2
2459	D2
2460	F2
2461	D1
2462	C1
2470	F1
2472	F2
2480	D2
2481	C2
2482	D2
2483	D3
2484	C2
2485	C3
2505	A1
2513	B1
2519	B1
2520	C2
2521	B1
2522	C2
2523	C2
2525	A2
2526	B2
2529	B1
2530	C3
2531	B3
2540	B3
2541	B3
2542	B2
2548	C2
2561	C3
2603	A5
2604	B5
2605	B5
2606	B4
2607	B5
2608	A3
2610	A3
2615	A4
2620	B4
2621	B4
2624	A3
2625	B5
2626	A3
2627	A4
2628	A4
2636	A3
2638	A5
2640	A5
2648	C3
2656	C3
2682	B3
2683	A3
2685	B3
2687	B4
2688	B3
2692	B4
2695	B3
2700	B4
2703	B4
2711	B5
2714	A5
2721	B5
2722	A5
2726	A5
2727	A5
2728	A5
2734	B3
2736	A2
2738	A3
2739	A4
3000	E3
3003	E3
3004	D3
3005	D3
3010	F4
3016	D3
3017	E3
3018	E3
3019	D3
3020	F4
3099	D3
3106	D5
3113	C4
3128	C4
3130	D5
3136	D5
3137	F5
3138	E5
3139	F5
3140	F5
3141	F5
3144	F5
3200	C5
3201	C5
3202	C5
3203	C5
3204	C5
3205	C5
3206	C5
3207	E5
3208	D5
3209	D5
3210	D4
3211	C5
3212	D3
3213	D4
3214	D5
3225	C5
3236	E5
3239	C5
3240	C4
3245	E4
3250	F5
3251	E5
3252	F5
3253	F4
3254	F4
3255	E5
3256	E5
3257	E5
3259	D5
3260	D5
3261	E3
3262	E3
3263	C4
3264	C4
3265	D3
3267	B5
3268	C5
3270	C5
3271	B5
3272	E4
3273	E4
3275	E4
3276	E4
3277	E4
3278	E4
3279	E4
3280	E4
3281	E4
3282	E4
3284	E5
3285	E5
3400	F3
3401	E3
3402	E2
3403	F2
3404	E2
3405	F2
3406	E3
3407	E3
3408	E3
3409	F2
3410	E3
3411	E2
3412	E2
3413	F3
3414	F2
3415	F2
3416	F3
3418	E4
3419	C1
3420	D4
3421	D4
3422	D4
3423	D4
3424	D3
3425	F4
3426	F4
3427	F4
3428	F4
3429	F4
3430	C2
3431	F4
3432	C3
3433	C3
3434	C3
3435	C2
3436	D3
3437	C1
3438	D2
3439	F1
3440	F1
3442	F1
3443	D1
3444	C1
3445	E1
3446	F1
3447	D3
3448	E2
3451	D1
3452	E2
3454	C2
3455	A3
3456	D1
3457	D2
3458	D2
3460	F2
3470	F2
3471	D2
3472	D2
3473	D3
3474	D3
3480	C2
3481	D2
3482	D3
3483	D3
3484	D2
3485	D2
3486	D3
3487	C2
3488	C2
3489	D3
3519	B1
3520	C2
3521	A1
3522	B1
3525	A2
3526	B2
3527	A1
3528	C2
3529	B1
3530	B1
3542	B2
3560	C3
3561	C3
3562	C3
3563	C3
3565	C3
3597	A2
3598	A1
3599	A2
3600	A4
3601	B4
3602	B4
3603	A5
3604	A5
3605	A4
3606	C4
3607	A5
3608	A3
3609	A3
3610	A5
3611	A4
3612	C4
3617	A3
3622	A4
3625	B5
3626	A3
3627	A4
3633	A3
3634	A4
3635	A5
3636	A3
3637	A5
3638	A5
3640	A5
3641	A5
3642	A4
3643	A5
3645	B3
3646	B4
3647	B4
3648	C4
3649	C3
3650	C3
3652	B4
3653	B4
3654	C4
3656	C3
3661	A4
3662	A3
3670	B4
3671	B4
3672	B4
3673	B4
3685	B3
3687	B4
3688	B5
3689	B5
3690	B5
3691	A4
3692	B4
3693	B3
3694	A4
3695	B3
3696	B5
3697	A4
3698	A4
3699	B4
3700	B4
3702	B4
3703	B4
3704	B4
3705	B4
3706	B4
3707	A4
3708	B4
3709	A4
3710	A4
3713	C4
3715	A5
3717	B5
3718	B5
3719	B4
3720	C4
3721	C4
3726	A5
3727	A5
3728	A5
3730	A3
3731	A2
3732	A2
3733	A3
3734	A3
3735	B3
3736	A2
3737	A2
3738	A2
3739	A3
5002	D3
5014	D4
5020	D3
5100	D5
5112	D5
5206	C5
5209	D5
5260	D4
5286	E5
5287	E5
5288	E5
5424	E4
5440	F1
5441	F1
5443	E2
5445	E2
5446	D1
5449	F2
5454	C2
5480	C1
5481	C2
5513	B1
5520	B1
5522	B1
5523	B1
5524	B2
5525	B2
5528	B2
5529	C2
5530	C2
5531	C2
5532	C2
5540	B2
5543	C3
5620	B4
5621	B4
5622	B4
5711	B5
5720	A5
5794	C4
6016	E3
6017	D3
6108	F5
6219	D5
6254	F4
6280	E5
6281	E5
6282	E5
6284	E4
6286	E5
6287	E5
6288	E5
6412	E2
6415	F3
6416	F2
6417	F2
6418	F3
6420	E4
6423	D4
6425	D4
6426	D4
6427	D4
6428	C4
6437	D2
6438	D1
6439	E1
6440	F1
6441	F2
6442	C1
6443	E3
6446	D1
6447	D1
6448	D1
6449	F2
6450	D1
6451	C1
6452	D2
6453	D1
6455	F1
6458	D2
6470	F2
6471	D2
6473	D2
6480	D2
6481	C2
6508	A1
6512	B1
6513	B1
6518	A1
6519	B1
6520	C2
6521	A1
6524	C4
6526	B1
6527	A1
6530	C3
6531	C3
6540	B3
6541	B3
6543	B3
6562	C3
6565	C3
6605	A5
6606	B5
6607	A5
6618	A3
6619	A3
6620	A3
6632	C2
6633	C3
6648	C3
6690	A4
6694	C4
6697	C4
6715	A5
6726	A5
6727	A5
6728	A5
7000	D3
7109	D3
7212	C5
7213	C5
7214	C5
7215	C3
7216	C5
7217	C5
7218	F4
7219	F4
7225	D4
7240	C5
7245	F5
7255	F5
7269	C5
7270	B5
7277	E4
7278	E4
7279	E4
7332	A3
7400	F2
7423	A4
7430	C3
7439	F1
7440	F1
7445	D1
7446	D1
7480	D2
7481	D2
7513	B1
7563	C3
7600	B4
7634	A4
7635	A5
7636	A3
7637	C4
7638	A3
7647	B4
7710	B5
7730	A2
7731	A3
7733	D3
7734	A2
9002	D3
9004	D3
9005	D3
9015	E3
9018	E3
9019	D2
9020	F4
9024	A5
9025	E4
9027	F4
9029	F5
9030	D3
9031	D5
9032	E5
9033	D5
9034	F4
9035	E4
9036	B3
9037	C4
9038	B3
9039	C5
9040	E5
9041	D4
9042	F4
9043	E2
9050	D5
9053	C5
9054	C3
9056	E5
9057	D5
9058	C4
9060	D3
9061	D3
9062	B5
9064	C2
9065	B5
9066	C4
9067	C4
9068	C2
9069	B4
9070	E1
9071	B4
9072	C4
9073	C4
9077	C4
9078	B5
9079	A4
9080	C4
9082	C5
9088	B4
9089	C4
9090	D5
9091	B4
9093	C4
9094	C4
9095	C4
9096	B5
9097	B4
9098	D1
9099	D5
9100	D5
9104	B5
9105	B5
9106	B5
9107	C4
9135	E5
9200	B5
9201	C5
9202	D5
9208	C5
9211	C5
9219	F4
9225	C5
9226	E4
9227	D4
9245	E4
9246	E4
9269	C5
9279	E4
9280	E5
9281	E4
9282	C4
9283	C4
9286	E5
9287	E5
9288	E5
9298	C5
9416	F3
9437	D2
9440	F1
9441	D3
9443	E3
9446	D1
9447	E1
9448	E1
9454	C2
9456	D1
9458	F1
9472	D2
9474	D3
9481	C2
9482	C2
9484	D2
9489	D3
9503	A2
9504	B1
9520	B1
9524	B2
9600	B4
9601	A4
9604	A5
9605	D2
9607	B5
9610	A5
9612	C4
9619	A3
9620	A3
9621	A3
9622	A3
9623	B3
9625	A3
9628	B5
9638	A4
9642	A4
9643	A5
9654	C4
9656	C3
9670	B4
9671	B4
9691	B4
9694	C4
9695	C4
9696	C4
9697	C4
9704	B4
9715	A5
9720	B5
9721	B5
9722	B5
9723	C5
9726	A5
9727	A5
9728	A5
9730	A3
9731	A3
9732	B3
9739	A3
M3	E3
M4	F3
M5	D2
M6	F2
M7	E5
M8	B5
M9	F5
M10	C5
M11	B1
M12	D3
M13	D5
M14	E5
M15	B3
M16	F5
M17	B5
M18	B5
M20A	E3
M21	A5
M22	E4
M22A	D3
M23	A1
M25	A3
M26	A5
M28	A4
M29	A4
M31	B5
M32	C5
M36	D2
M41A	F3
M41	F4
M50A	C5
M50	E3
M52	D1
M60	B3
M62	A4
M62A	B3
M72A	C4
M72	C4
M76	B5
M76A	E5
M78	A4
M78A	A4
M79	A5
M84	C1
M85	D3
M86A	D4
M86	D4
M89	C3
M89A	D4
M90B	A2
M90A	B2
M90	E3
M92A	D3
M92	D5



CRT panel 25" and 29"

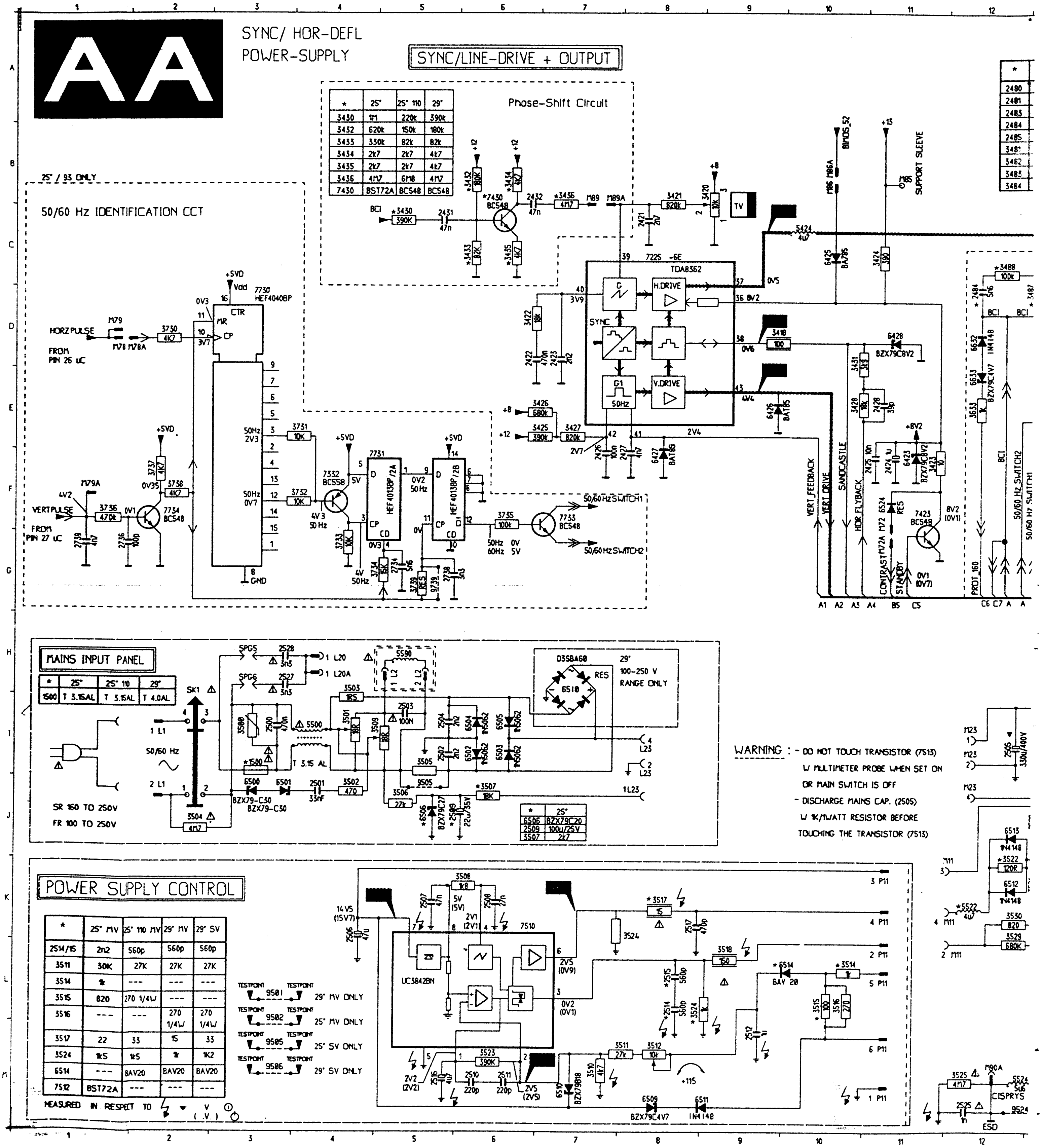


E E
PICTURE TUBE PANEL
TO MAIN PANEL M7
DIAGRAM B
WHITE D
CUT OFF B
CUT OFF G
CUT OFF R
7305 BF869
7306 BF494B
7318 BF869
7319 BF494B
7327 BF869
7328 BF494B
7325 BC558
+8VA
+160
+8
BAV20
BYD33M(25")
BZX79C4V7
25" only
(2R7 29")
25" 110° & 29" only
29" & 25" 110°
FF
Vg1
Vg2
FOCUS
AQUADAG
EHT 25KV
TO MAIN PANEL M6
DIAGRAM A
FROM MAIN PANEL (LOT)
DIAGRAM A
160/sgnd
9352 (25" 110)
9351 (25" , 29")

*	25" 110°, 25"	29"
2304/17/30	470p	560p
3305/18/32	270p	220p
3309/23/31	150p	180p
3325	2k2	4k7
5306/19/28	820uH	Jumper
5338	82uH	47uH

2302	D 2
2304	E 4
2306	M 6
2308	K 5
2309	L 6
2310	L 6
2311	L 6
2317	I 4
2330	M 3
2337	L 8
2338	L 7
2339	L 7
2340	L 7
2350	L 4
2351	L 5
3300	M 5
3301	M 6
3302	C 4
3303	D 6
3304	F 4
3305	F 4
3306	E 3
3307	E 3
3308	C 4
3309	D 4
3310	F 1
3311	F 1
3312	G 1
3313	F 2
3314	I 2
3315	G 4
3316	H 6
3317	I 4
3318	I 4
3319	H 3
3320	H 3
3321	G 4
3322	L 2
3323	H 4
3324	L 2
3325	L 1
3326	M 1
3327	L 1
3328	J 4
3329	H 6
3330	N 3
3331	K 4
3332	N 4
3333	L 3
3334	L 3
3335	J 3
3336	K 7
3337	K 8
3338	C 4
3339	G 4
3340	K 4
3341	L 3
3342	H 3
3343	C 5
3344	K 7
3345	K 6
3346	H 5
3347	E 3
3349	I 5
3350	L 5
5302	D 2
5306	C 4
5319	G 4
5328	K 4
5338	L 7
5343	D 5
5346	H 5
5349	I 5
6302	D 1
6305	D 3
6306	C 4
6307	K 6
6308	K 6
6318	H 3
6319	G 4
6327	K 3
6328	K 4
6350	L 5
7305	D 4
7306	E 4
7318	H 4
7319	H 4
7325	L 1
7327	K 4
7328	M 4
9302	D 2
9306	C 4
9319	G 4
9328	K 4
9336	K 7
9337	K 7
9341	L 3
9343	D 5
9346	H 5
9347	E 3
9349	I 5
9351	O 2
9352	O 2
L3	N 8
L4	G 6
L5	I 8
L5	I 7
L5	H 6
L5	I 8
L5	H 6
L5	I 7
L5	I 7
L5	H 6
L5	I 6
L58	I 8
L58	I 7
L58	H 6
L58	I 8
L58	H 6
L58	I 7
L58	I 7
L58	H 6
L58	I 6
L6	N 5
L6	N 7
L6	N 7
L6	N 6
L6	N 6
L7	D 1
L7	C 1
L7	E 1
L7	G 1
L7	F 1

Power supply + Synchronisation + Deflection


AA
SYNC/ HOR-DEFL
POWER-SUPPLY
SYNC/LINE-DRIVE + OUTPUT
Phase-Shift Circuit
25" / 93 ONLY
50/60 Hz IDENTIFICATION CCT
HORZPULSE FROM PIN 26 uC
VERTPULSE FROM PIN 27 uC
7730 HEF4040BP
7731 HEF4013BP/2A
HEF4013BP/2B
7332 BC558
7733 BC548
7734 BC548
50/60HzSWITCH1
50/60HzSWITCH2
50Hz 0V 60Hz 5V
7430 BC548
7225 -6E TDA8362
H.DRIVE
V.DRIVE
SYNC
TV
BIMOS_52
SUPPORT SLEEVE
VERT_FEEDBACK
VERT_DRIVE
SANDCASTLE
HOR_FLYBACK
CONTRAST
STANDBY
7423 BC548
PROT_160
50/60 Hz SWITCH2
50/60 Hz SWITCH1
A1 A2 A3 A4 B5 C5 C6 C7 A A
D3SBA60
6510
RES
29" 100-250 V RANGE ONLY
SK1
1 L1
2 L1
50/60 Hz
SR 160 TO 250V
FR 100 TO 250V
T 3.15 AL
L20
L20A
L23
1L23
5500
5590
7510
UC3842BN
14V5 (15V7)
P11
M11
CISPRYS
ESD
TESTPOINT 9501 29" MV ONLY
TESTPOINT 9502 25" MV ONLY
TESTPOINT 9505 25" SV ONLY
TESTPOINT 9506 29" SV ONLY
+115

*	25"	25" 110	29"
3430	1M	220k	390k
3432	620k	150k	180k
3433	330k	82k	82k
3434	2k7	2k7	4k7
3435	2k7	2k7	4k7
3436	4M7	6M8	4M7
7430	BST72A	BC548	BC548

MAINS INPUT PANEL

*	25"	25" 110	29"
1500	T 3.15AL	T 3.15AL	T 4.0AL

*	25"
6506	BZX79C20
2509	100u/25V
3507	2k7

WARNING : - DO NOT TOUCH TRANSISTOR (7513)
W MULTIMETER PROBE WHEN SET ON
OR MAIN SWITCH IS OFF
- DISCHARGE MAINS CAP. (2505)
W 1K/1WATT RESISTOR BEFORE
TOUCHING THE TRANSISTOR (7513)

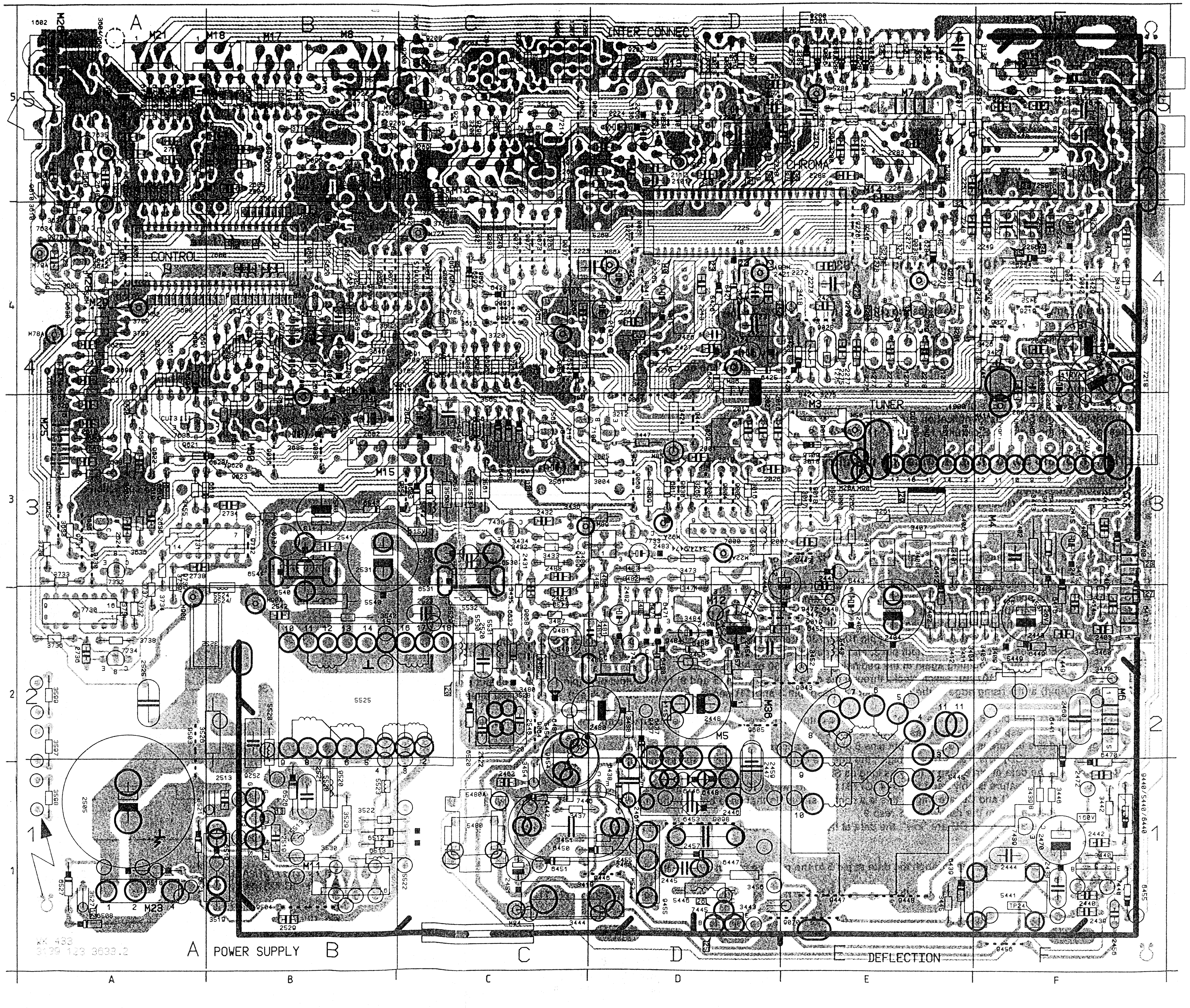
POWER SUPPLY CONTROL

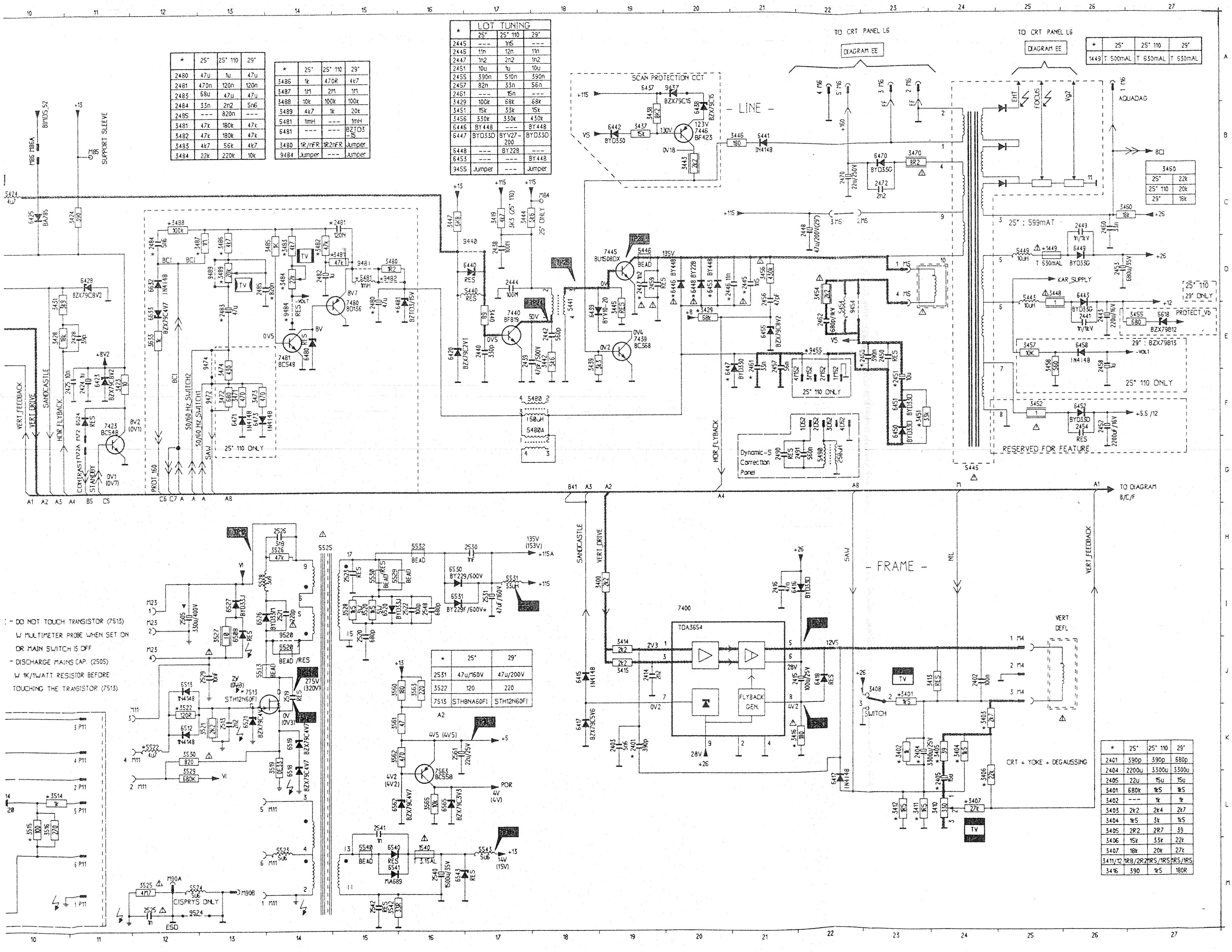
*	25" MV	25" 110 MV	29" MV	29" SV
2514/15	2n2	560p	560p	560p
3511	30K	27K	27K	27K
3514	1k	---	---	---
3515	820	270 1/4W	---	---
3516	---	---	270 1/4W	270 1/4W
3517	22	33	15	33
3524	1k5	1k5	1k	1K2
6514	---	BAV20	BAV20	BAV20
7512	BST72A	---	---	---

MEASURED IN RESPECT TO ↯ ⏚ V (.V.) ①

Main carrier 25" and 29" Anubis S BB (Copper side)

1000	F3
1015	D4
1105	C5
1106	C5
1204	C5
1206	C5
1207	C5
1208	C5
1275	E4
1277	E4
1278	E4
1279	E4
1449	F2
1540	B3
1602	A5
1630	A4
2001	D3
2002	F4
2007	E3
2008	F4
2009	F4
2010	F4
2011	F4
2016	D3
2017	D3
2026	D3
2027	D3
2101	D5
2102	D5
2103	D5
2104	D4
2112	D5
2119	C5
2123	D5
2138	E5
2200	C5
2208	D5
2212	E5
2213	D4
2219	D5
2220	D5
2221	D5
2222	D4
2223	C4
2224	D5
2225	D5
2228	D5
2236	F5
2243	F5
2245	F5
2246	F5
2248	E4
2249	F4
2251	E5
2253	F4
2254	F4
2256	F4
2257	F4
2260	C5
2261	D4
2262	F4
2264	C4
2265	D4
2266	D5
2272	E4
2273	E4
2275	E4
2277	E4
2278	E4
2279	E4
2280	E5
2281	E5
2282	D5
2283	E5
2284	E5
2285	E5
2401	F2
2402	F3
2403	F2
2404	E2
2405	E2
2414	F2
2415	F3
2416	F3
2421	D4
2422	D4
2423	D4
2424	D4
2425	E4
2426	D4
2427	D4
2428	F4
2431	C2
2432	C3
2438	F1
2439	F1
2440	F1
2441	E2
2442	F1
2443	D3
2444	F1
2445	D1
2446	D1
2447	D2
2448	D2
2449	F2
2450	C1
2451	C1
2452	D2
2453	F2
2454	D2
2455	C1
2456	F1
2457	D1
2458	D2
2459	D2
2460	F2
2461	D1
2462	C1
2470	F1
2472	F2
2480	D2
2481	C2
2482	D2
2483	D3
2484	C2
2485	C3
2505	A1
2513	B1
2519	B1
2520	C2
2521	B1
2522	C2
2523	C2
2525	A2
2526	B2
2529	B1
2530	C3
2531	B3
2540	B3
2541	B3
2542	B2
2548	C2
2561	C3
2603	A5
2604	B5
2605	B5
2606	B4
2607	B5
2608	A3
2610	A3
2615	A4
2620	B4
2621	B4
2624	A3
2625	B5
2626	A3
2627	A4
2628	A4
2636	A3
2638	A5
2640	A5
2648	C3
2656	C3
2682	B3
2683	A3
2685	B3
2687	B4
2688	B3
2692	B4
2695	B3
2700	B4
2703	B4
2711	B5
2714	A5
2721	B5
2722	A5
2726	A5
2727	A5
2728	A5
2734	B3
2736	A2
2738	A3
2739	A4
3000	E3
3003	E3
3004	D3
3005	D3
3010	F4
3016	D3
3017	E3
3018	E3
3019	D3
3020	F4
3099	D3
3106	D5
3113	C4
3128	C4
3130	D5
3136	D5
3137	F5
3138	E5
3139	F5
3140	F5
3141	F5
3144	F5
3200	C5
3201	C5
3202	C5
3203	C5
3204	C5
3205	C5
3206	C5
3207	E5
3208	D5
3209	D5
3210	D4
3211	C5
3212	D3
3213	D4
3214	D5
3225	C5
3236	E5
3239	C5
3240	C4
3245	E4
3250	F5
3251	E5
3252	F5
3253	F4
3254	F4
3255	E5
3256	E5
3257	E5
3259	D5
3260	D5
3261	E3
3262	E3
3263	C4
3264	C4
3265	D3
3267	B5
3268	C5
3270	C5
3271	B5
3272	E4
3273	E4
3275	E4
3276	E4
3277	E4
3278	E4
3279	E4
3280	E4
3281	E4
3282	E4
3284	E5
3285	E5
3400	F3
3401	E3
3402	E2
3403	F2
3404	E2
3405	F2
3406	E3
3407	E3
3408	E3
3409	F2
3410	E3
3411	E2
3412	E2
3413	F3
3414	F2
3415	F2
3416	F3
3418	E4
3419	C1
3420	D4
3421	D4
3422	D4
3423	D4
3424	D3
3425	F4
3426	F4
3427	F4
3428	F4
3429	F4
3430	C2
3431	F4
3432	C3
3433	C3
3434	C3
3435	C2
3436	D3
3437	C1
3438	D2
3439	F1
3440	F1
3442	F1
3443	D1
3444	C1
3445	E1
3446	F1
3447	D3
3448	E2
3451	D1
3452	E2
3454	C2
3455	A3
3456	D1
3457	D2
3458	D2
3460	F2
3470	F2
3471	D2
3472	D2
3473	D3
3474	D3
3480	C2
3481	D2
3482	D3
3483	D3
3484	D2
3485	D2
3486	D3
3487	C2
3488	C2
3489	D3
3519	B1
3520	C2
3521	A1
3522	B1
3525	A2
3526	B2
3527	A1
3528	C2
3529	B1
3530	B1
3542	B2
3560	C3
3561	C3
3562	C3
3563	C3
3565	C3
3597	A2
3598	A1
3599	A2
3600	A4
3601	B4
3602	B4
3603	A5
3604	A5
3605	A4
3606	C4
3607	A5
3608	A3
3609	A3
3610	A5
3611	A4
3612	C4
3617	A3
3622	A4
3625	B5
3626	A3
3627	A4
3633	A3
3634	A4
3635	A5
3636	A3
3637	A5
3638	A5
3640	A5
3641	A5
3642	A4
3643	A5
3645	B3
3646	B4
3647	B4
3648	C4
3649	C3
3650	C3
3652	B4
3653	B4
3654	C4
3656	C3
3661	A4
3662	A3
3670	B4
3671	B4
3672	B4
3673	B4
3685	B3
3687	B4
3688	B5
3689	B5
3690	B5
3691	A4
3692	B4
3693	B3
3694	A4
3695	B3
3696	B5
3697	A4
3698	A4
3699	B4
3700	B4
3702	B4
3703	B4
3704	B4
3705	B4
3706	B4
3707	A4
3708	B4
3709	A4
3710	A4
3713	C4
3715	A5
3717	B5
3718	B5
3719	B4
3720	C4
3721	C4
3726	A5
3727	A5
3728	A5
3730	A3
3731	A2
3732	A2
3733	A3
3734	A3
3735	B3
3736	A2
3737	A2
3738	A2
3739	A3
5002	D3
5014	D4
5020	D3
5100	D5
5112	D5
5206	C5
5209	D5
5260	D4
5286	E5
5287	E5
5288	E5
5424	E4
5440	F1
5441	F1
5443	E2
5445	E2
5446	D1
5449	F2
5454	C2
5480	C1
5481	C2
5513	B1
5520	B1
5522	B1
5523	B1
5524	B2
5525	B2
5528	B2
5529	C2
5530	C2
5531	C2
5532	C2
5540	B2
5543	C3
5620	B4
5621	B4
5622	B4
5711	B5
5720	A5
5794	C4
6016	E3
6017	D3
6108	F5
6219	D5
6254	F4
6280	E5
6281	E5
6282	E5
6284	E4
6286	E5
6287	E5
6288	E5
6412	E2
6415	F3
6416	F2
6417	F2
6418	F3
6420	E4
6423	D4
6425	D4
6426	D4
6427	D4
6428	C4
6437	D2
6438	D1
6439	E1
6440	F1
6441	F2
6442	C1
6443	E3
6446	D1
6447	D1
6448	D1
6449	F2
6450	D1
6451	C1
6452	D2
6453	D1
6455	F1
6458	D2
6470	F2
6471	D2
6473	D2
6480	D2
6481	C2
6508	A1
6512	B1
6513	B1
6518	A1
6519	B1
6520	C2
6521	A1
6524	C4
6526	B1
6527	A1
6530	C3
6531	C3
6540	B3
6541	B3
6543	B3
6562	C3
6565	C3
6605	A5
6606	B5
6607	A5
6618	A3
6619	A3
6620	A3
6632	C2
6633	C3
6648	C3
6690	A4
6694	C4
6697	C4
6715	A5
6726	A5
6727	A5
6728	A5
7000	D3
7109	D3
7212	C5
7213	C5
7214	C5
7215	C3
7216	C5
7217	C5
7218	F4
7219	F4
7225	D4
7240	C5
7245	F5
7255	F5
7269	C5
7270	B5
7277	E4
7278	E4
7279	E4
7332	A3
7400	F2
7423	A4
7430	C3
7439	F1
7440	F1
7445	D1
7446	D1
7480	D2
7481	D2
7513	B1
7563	C3
7600	B4
7634	A4
7635	A5
7636	A3
7637	C4
7638	A3
7647	B4
7710	B5
7730	A2
7731	A3
7733	D3
7734	A2
9002	D3
9004	D3
9005	D3
9015	E3
9018	E3
9019	D2
9020	F4
9024	A5
9025	E4
9027	F4
9029	F5
9030	D3
9031	D5
9032	E5
9033	D5
9034	F4
9035	E4
9036	B3
9037	C4
9038	B3
9039	C5
9040	E5
9041	D4
9042	F4
9043	E2
9050	D5
9053	C5
9054	C3
9056	E5
9057	D5
9058	C4
9060	D3
9061	D3
9062	B5
9064	C2
9065	B5
9066	C4
9067	C4
9068	C2
9069	B4
9070	E1
9071	B4
9072	C4
9073	C4
9077	C4
9078	B5
9079	A4
9080	C4
9082	C5
9088	B4
9089	C4
9090	D5
9091	B4
9093	C4
9094	C4
9095	C4
9096	B5
9097	B4
9098	D1
9099	D5
9100	D5
9104	B5
9105	B5
9106	B5
9107	C4
9135	E5
9200	B5
9201	C5
9202	D5
9208	C5
9211	C5
9219	F4
9225	C5
9226	E4
9227	D4
9245	E4
9246	E4
9269	C5
9279	E4
9280	E5
9281	E4
9282	C4
9283	C4
9286	E5
9287	E5
9288	E5
9298	C5
9416	F3
9437	D2
9440	F1
9441	D3
9443	E3
9446	D1
9447	E1
9448	E1
9454	C2
9455	D1
9456	F1
9472	D2
9474	D3
9481	C2
9482	C2
9484	D2
9489	D3
9503	A2
9504	B1
9520	B1
9524	B2
9600	B4
9601	A4
9604	A5
9605	D2
9607	B5
9610	A5
9612	C4
9619	A3
9620	A3
9621	A3
9622	A3
9623	B3
9625	A3
9628	B5
9638	A4
9642	A4
9643	A5
9654	C4
9656	C3
9670	B4
9671	B4
9691	B4
9694	C4
9695	C4
9696	C4
9697	C4
9704	B4
9715	A5
9720	B5
9721	B5
9722	B5
9723	C5
9726	A5
9727	A5
9728	A5
9730	A3
9731	A3
9732	B3
9739	A3
M3	E3
M4	F3
M5	D2
M6	F2
M7	E5
M8	B5
M9	F5
M10	C5
M11	B1
M12	D3
M13	D5
M14	E5
M15	B3
M16	F5
M17	B5
M18	B5
M20A	E3
M21	A5
M22	E4
M22A	D3
M23	A1
M25	A3
M26	A5
M28	A4
M29	A4
M31	B5
M32	C5
M36	D2
M41A	F3
M41	F4
M50A	C5
M50	E3
M52	D1
M60	B3
M62	A4
M62A	B3
M72A	C4
M72	C4
M76	B5
M76A	E5
M78	A4
M78A	A4
M79	A5
M84	C1
M85	D3
M86A	D4
M86	D4
M89	C3
M89A	D4
M90B	A2
M90A	B2
M90	E3
M92A	D3
M92	D5





*	25"	25" 110	29"
2480	47u	1u	47u
2481	470n	120n	120n
2483	68u	47u	47u
2484	33n	2n2	5n6
2485	---	820n	---
3481	47k	180k	47k
3482	47k	180k	47k
3483	4k7	56k	4k7
3484	22k	220k	10k

*	25"	25" 110	29"
3486	1k	470R	4k7
3487	1M	2M	1M
3488	10k	100k	100k
3489	4k7	1k	20k
5481	1mH	---	1mH
6481	---	---	BZT03 -15
3480	1R/nFR	1R2nFR	Jumper
9484	Jumper	---	Jumper

*	LOT TUNING		
	25"	25" 110	29"
2445	---	1n5	---
2446	11n	12n	11n
2447	1n2	2n2	1n2
2451	10u	1u	10u
2455	390n	510n	390n
2457	82n	33n	56n
2461	---	15n	---
3429	100k	68k	68k
3451	15k	33k	15k
3456	330k	330k	430k
6446	BY448	---	BY448
6447	BYD33D	BYV27-200	BYD33D
6448	---	BY228	---
6453	---	---	BY448
9455	Jumper	---	Jumper

*	25"	25" 110	29"
1449	T 500mAL	T 630mAL	T 630mAL

3460	
25"	22k
25" 110	20k
29"	18k

*	25"	29"
2531	47u/160V	47u/200V
3522	120	220
7513	STH8NA60FI	STH12N60FI

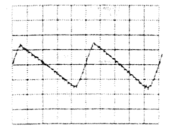
*	25"	25" 110	29"
2401	390p	390p	680p
2404	2200u	3300u	3300u
2405	22u	15u	15u
3401	680k	1k5	1k5
3402	---	1k	1k
3403	2k2	2k4	2k7
3404	1k5	3k	1k5
3405	2R2	2R7	39
3406	15k	33k	22k
3407	18k	20k	27k
3411/12	1R8/2R2	1R5/1R5	1R5/1R5
3416	390	1k5	180R

: - DO NOT TOUCH TRANSISTOR (7513)
W MULTIMETER PROBE WHEN SET ON
OR MAIN SWITCH IS OFF
- DISCHARGE MAINS CAP. (2505)
W 1K/1WATT RESISTOR BEFORE
TOUCHING THE TRANSISTOR (7513)

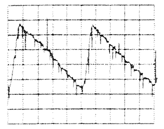
1449	D25	3457	E25	6530	H16
1500	I 3	3458	E25	6531	I16
1540	M16	3460	C27	6540	M15
2401	K19	3470	B23	6541	M15
2402	J24	3471	F13	6543	M16
2403	K19	3472	F13	6562	L15
2404	K23	3473	F13	6565	L16
2405	L24	3474	E13	6518	E27
2414	J19	3480	D15	6632	D12
2415	J21	3481	D15	6633	E12
2416	I21	3482	D14	7225	C 8
2421	C 8	3483	D14	7332	F 4
2422	D 6	3484	D14	7400	I20
2423	D 7	3485	D14	7423	F11
2424	F11	3486	D13	7430	B 6
2425	F11	3487	D13	7439	E19
2426	F 7	3488	C12	7440	E17
2427	F 8	3489	D13	7445	D19
2428	E11	3500	I 3	7446	B20
2431	C 5	3501	I 4	7480	D15
2432	B 6	3502	J 4	7481	E14
2438	D17	3503	H 4	7510	K 6
2439	E17	3504	J 2	7512	L 9
2440	E17	3505	I 5	7513	J13
2441	E26	3506	J 5	7563	K16
2442	E18	3507	J 6	7730	D 3
2443	E26	3508	K 6	7731	F 4
2444	D17	3509	I 5	7733	F 7
2445	D21	3510	M 7	7734	F 2
2446	D20	3511	M 8	9437	A20
2447	D19	3512	M 8	9440	D17
2448	C22	3514	L10	9454	E22
2449	C26	3515	L10	9455	E22
2450	E23	3516	L10	9472	F13
2451	F23	3517	K 8	9474	E13
2452	F26	3518	L 9	9481	D15
2453	D26	3519	K14	9482	D15
2454	F26	3520	I15	9484	E14
2455	E23	3521	K13	9489	D13
2456	D21	3522	K12	9501	L 3
2457	E21	3523	M 6	9502	L 3
2458	E26	3524	L 8	9505	M 3
2459	D19	3525	M12	9505	J 5
2460	C26	3526	H14	9506	M 3
2461	E21	3527	I13	9520	I14
2462	E22	3528	I15	9524	M12
2470	C22	3529	K12	9739	G 5
2472	C23	3530	K12	D52	F22
2480	D15	3542	M15	D52	F22
2481	C15	3560	J15	D52	F22
2482	D14	3561	K15	D52	F22
2483	E13	3562	K15	L1	I 2
2484	D12	3563	J16	L1	J 2
2485	D13	3555	L16	L2	H 5
2490	G21	3633	E12	L2	H 5
2491	G22	3730	D 2	L20	H 4
2500	I 3	3731	E 4	L20A	H 4
2501	J 4	3732	F 4	L23	J 8
2502	I 5	3733	G 4	L23	I 8
2503	I 5	3734	G 4	L23	I 8
2504	I 5	3735	F 6	M11	M14
2505	I12	3736	F 1	M11	L12
2506	K 4	3737	F 2	M11	K11
2507	K 5	3738	F 2	M11	K12
2508	K 6	3739	G 5	M11	L14
2509	J 5	5424	C10	M11	M14
2510	M 6	5440	D17	M23	I12
2511	M 6	5441	D18	M23	I12
2512	M 9	5443	D25	M23	J12
2513	K13	5445	G24	M4	J25
2514	L 8	5446	D19	M4	J25
2515	L 8	5449	D25	M4	J25
2516	M 5	5454	E22	M5	D23
2517	K 8	5480	F18	M5	C22
2519	J14	5480A	F18	M5	C22
2520	I15	5481	D15	M5	D23
2521	I14	5490	G22	M52	F22
2522	I16	5500	I 4	M52	F22
2523	I15	5513	J13	M52	F22
2525	M12	5520	J14	M52	F22
2526	H14	5522	K12	M6	A25
2527	H 3	5523	M14	M6	A23
2528	H 3	5524	M12	M6	A23
2529	J13	5525	H14	M6	A22
2530	H17	5528	I13	M6	A22
2531	I17	5529	I15	M72	F11
2540	M16	5530	I15	M72A	G11
2541	L15	5531	I17	M78	D 1
2542	M15	5532	H16	M78A	D 1
2548	I16	5540	M15	M79	D 1
2561	K16	5543	M17	M79A	F 1
2734	G 5	6412	L22	M84	C18
2736	G 1	6415	J18	M85	B11
2738	G 5	6416	I21	M86	B10
2739	G 1	6417	K18	M86A	B10
3400	I19	6418	J22	M89	B 7
3401	J23	6420	E16	M89A	B 8
3402	K23	6423	F11	M90A	M12
3403	K24	6425	C10	M90B	M13
3404	K24	6426	E 9	P11	M11
3405	K24	6427	F 8	P11	L11
3406	L24	6428	D11	P11	K11
3407	L24	6437	A19	P11	K11
3408	J23	6438	B20	P11	L11
3410	L24	6439	E18	P11	M11
3411	L23	6440	D17	SK1	H 2
3412	L23	6441	B21	SPG5	H 3
3413	J24	6442	B19	SPG6	H 3
3414	J19	6443	D26		
3415	J19	6446	D20		
3416	K21	6447	E20		
3418	D 9	6448	D20		
3419	C17	6449	D26		
3420	B 9	6450	F23		
3421	B 8	6451	F23		
3422	D 6	6452	F26		
3423	F11	6453	D20		
3424	C11	6455	E21		
3425	E 7	6458	E26		
3426	E 7	6470	B23		
3427	E 7	6471	F13		
3428	E10	6473	F13		
3429	E20	6480	E14		
3430	C 5	6481	D16		
3431	D10	6500	J 3		
3432	B 6	6501	J 3		
3433	C 6	6502	I 6		
3434	B 6	6503	I 6		
3435	C 6	6504	I 6		
3436	B 7	6505	I 6		
3437	B19	6506	J 5		
3438	B19	6508	I13		
3439	E18	6509	M 8		
3440	E17	6510	H 7		
3442	E18	6510	M 7		
3443	B20	6511	M 9		
3444	C17	6512	K12		
3445	E19	6513	J12		
3446	B21	6514	L10		
3447	C16	6518	K14		
3448	D25	6519	K14		
3451	F23	6520	I15		
3452	F25	6521	K13		
3454	D22	6524	F11		
3455	E27	6526	I13		
3456	D21	6527	I13		

SCH : anz/3122/223/32550/01

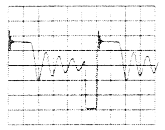
TP12 ①


2V/div AC
2ms div

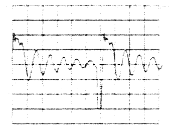
TP12 ⏻


0,2V/div AC
2ms div

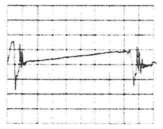
TP13 ①


100V/div AC
5µs div

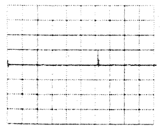
TP13 ⏻


100V/div AC
5µs div

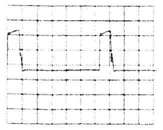
TP14 ①


1V/div AC
0,5µs div

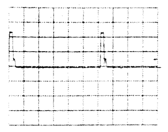
TP14 ⏻


1V/div AC
0,5µs div

TP15 ①


5V/div AC
5µs div

TP15 ⏻


5V/div AC
5µs div

TP16 29" = 14V5 DC ①

TP16 29" = 15V7 DC ⏻

TP17 29" = 2V5 DC

TP18 29" = 6V DC

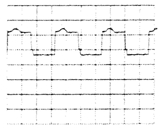
TP19 29" = 14V DC ①

TP19 29" = 15V DC ⏻

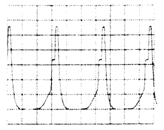
TP20 29" = 135V DC ①

TP20 29" = 153V DC ⏻

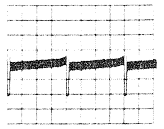
TP21


0,5V/div AC
20µs div

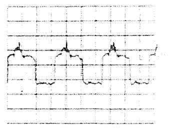
TP22


2V/div AC
20µs div

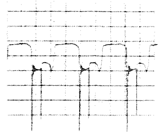
TP23


2V/div AC
5ms div

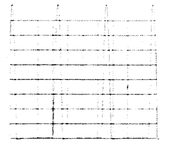
TP24


0,2V/div AC
20µs div

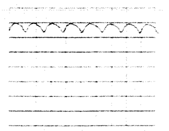
TP25


1V/div AC
20µs div

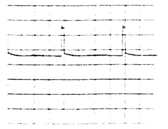
TP26


100V/div AC
20µs div

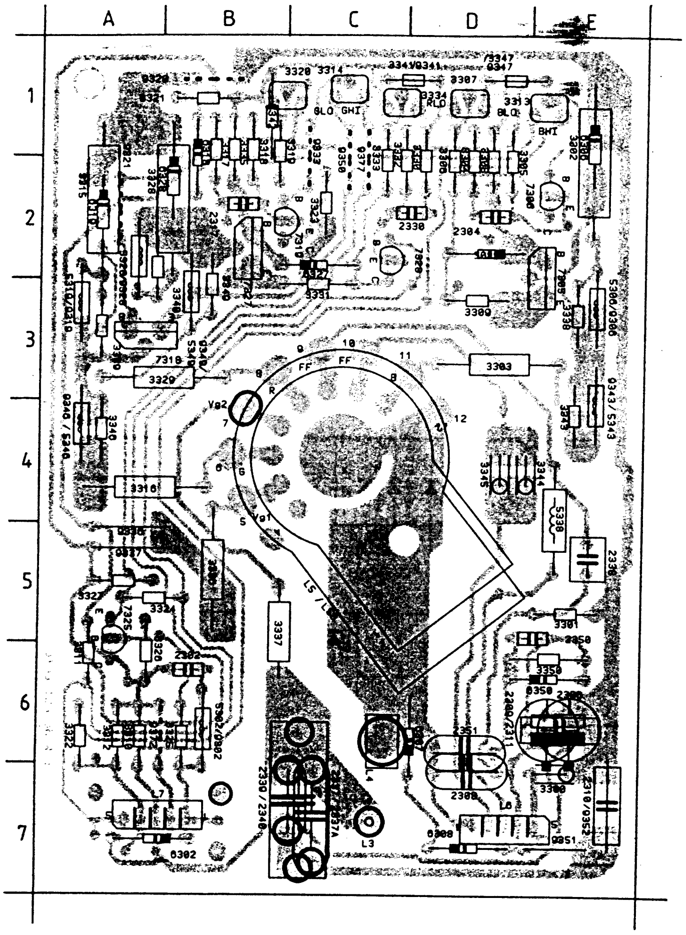
TP27


T=50us
Δv=5v

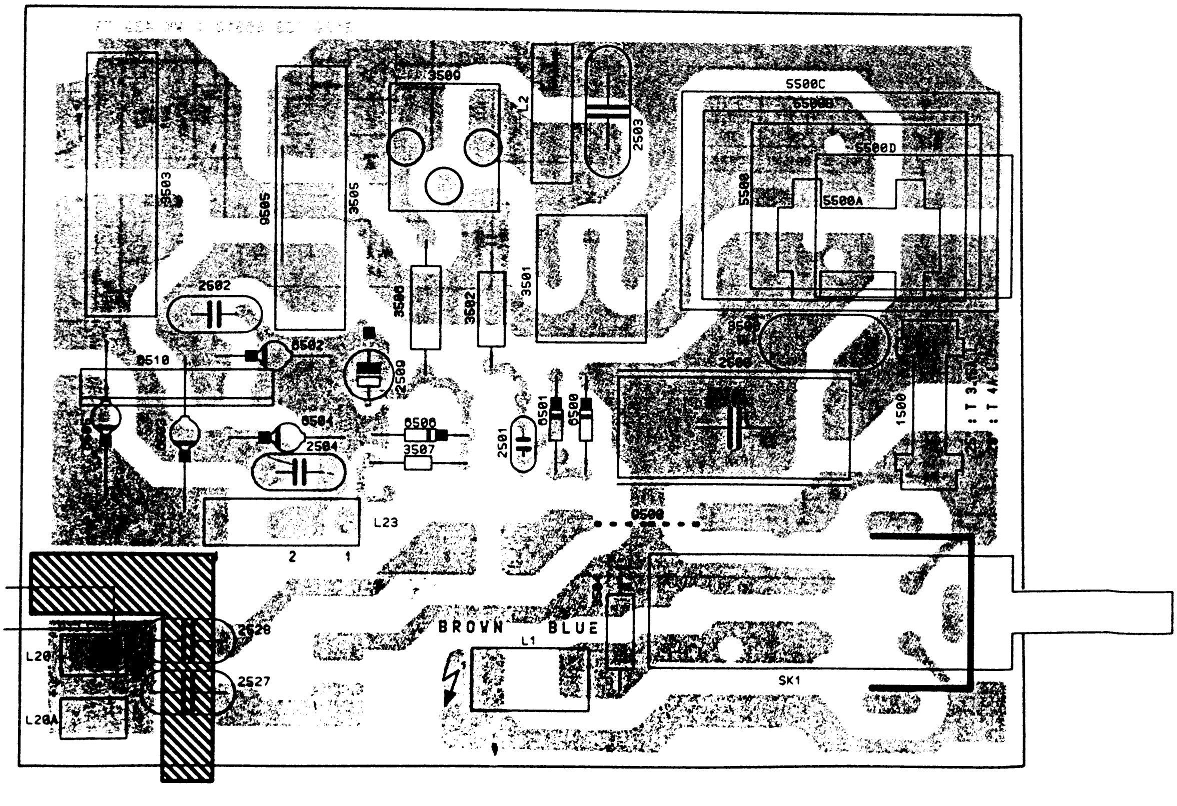
TP28


T=5ms
Δv=10v

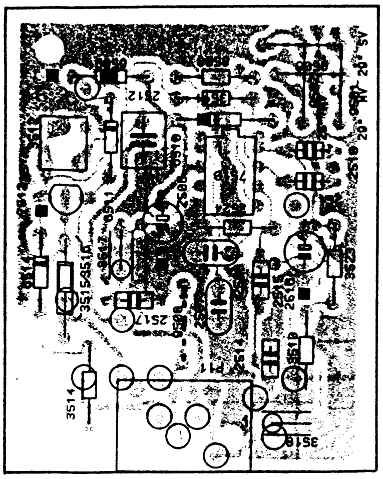
CRT panel 25" and 29" (Copper side)


A
B
C
D
E
1
2
3
4
5
6
7
3320
3314
3341
0341
3347
0347
3307
3334
3313
BLO
GHI
RLO
BHI
3302
2338
2304
3300
3303
3329
7318
3316
3340
3337
2330 / 2340
L3
6308
2308
6351
2310/0352
3300
6350
2350
3301
2336
5338
3345
3344
L5 / L6
Vg2
6302
L7
3322
3327
7325
3324
2302
5302/0302
FF
R
G
B
10
11
12
8
9
7
6
5

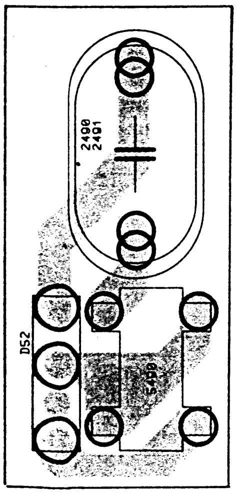
2302	B6
2304	D2
2306	E6
2308	D7
2309	E6
2310	E7
2311	E6
2317	B2
2330	D2
2337	C7
2337	C7
2338	E5
2339	C7
2340	C7
2350	E5
2351	D6
3300	E7
3301	E5
3302	E2
3303	D3
3304	D2
3305	D2
3306	D2
3307	D1
3308	D2
3309	D3
3310	A6
3311	A6
3312	A6
3313	E1
3314	C1
3315	A2
3316	A4
3317	B1
3318	B1
3319	B1
3320	C1
3321	B1
3322	A6
3323	C2
3324	A5
3325	B6
3326	A6
3327	A5
3328	B2
3329	B3
3330	D2
3331	C3
3332	C2
3333	C2
3334	C1
3335	B1
3336	B5
3337	B5
3338	E3
3339	A3
3340	A2
3341	D1
3342	B1
3343	E4
3344	E4
3345	D4
3346	A4
3347	D1
3349	B3
3350	E6
5302	B6
5306	E3
5319	A3
5328	A2
5338	E4
5343	E4
5346	A4
5349	B3
6302	A7
6305	D2
6306	E1
6307	D6
6308	D7
6318	B1
6319	A2
6327	C2
6328	B2
6350	E6
7305	E2
7306	E2
7318	A3
7319	B2
7325	A5
7327	B2
7328	C2
9302	B6
9306	E3
9319	A3
9321	A2
9333	C1
9336	A5
9337	A5
9341	D1
9343	E4
9346	A4
9347	D1
9349	B3
9350	C2
9351	E7
9352	E7
9372	B6
9377	C1
L3	C7
L4	C6
L5	C4
L6	D7
L7	B7
L58	C4


3500
L2
2503
5500C
5500B
5500D
5500
5500A
3503
9505
3505
3506
3502
3501
2502
6502
6510
2500
6504
2504
6506
3507
2501
6501
6500
6503
2505
1500
L23
2
1
6509
2528
2527
L20
L20A
BROWN
BLUE
L1
SK1

Power supply control panel 25" and 29" (Copper side)



S-correction panel 25" 110° (Copper side)



Main carrier 25" and 29" [AA/B/C/D]

Various

	4822 404 21262	Bracket clamping heatsink
	4822 492 62076	Spring for TS7513 and IC7400
▲	4822 492 70289	Spring for TS7445
▲	4822 532 61201	EHT cable spacer
	4822 265 31193	3 pins male WTB
▲	4822 265 20441	3 pins header
	4822 417 50217	4 pins male BTB (AU)
	4822 265 31189	4 pins male WTB
	4822 265 30378	4 pins male WTB
	4822 265 30796	4 pins header (M5)
	4822 265 30934	5 pins header (M26)
	4822 265 31181	5 pins male WTB (M25)
	4822 265 31093	6 pins male BTB (AU)
	4822 265 31099	6 pins snap blue
	4822 290 40295	7 pins male WTB
	4822 267 51241	8 pins male BTB (AU)
	4822 265 40818	8 pins male WTB
1000	4822 210 10448	UV915E/IEC
1000▲	4822 210 10459	UV913/IEC
1000	4822 210 10561	UV936E/F (PLL)
1000	3139 147 11380	UV953/IEC -/93 (local sourcing)
1015	4822 242 72197	OFWK2950 38.9 MHz
1015	4822 242 73792	OFWM1963 45.75 MHz
1015	4822 242 81556	OFWK2950M 38.9 MHz
1015	4822 242 81637	OFWK3952M 38.9 MHz
1105	4822 242 71713	6.0 MHz
1105	4822 242 72547	5.5 MHz
1105	4822 242 81557	4.5 MHz
1106	4822 242 72057	6.5 MHz
1204	4822 242 71207	4.5 MHz
1206	4822 242 71207	4.5 MHz
1206	4822 242 81712	5.5/5.74 MHz
1207	4822 242 81301	6.5 MHz
1208	4822 153 30025	6.0 MHz
1208	4822 242 81712	5.5/5.74 MHz
1275	4822 242 81691	4.433619 MHz
1277	4822 242 81575	3.579500 MHz
1449▲	4822 071 56301	Fuse 630 mA
1540▲	4822 071 53152	Fuse 3.15 A
1630	4822 242 81727	10.0 MHz ceramic
1630	4822 242 81893	10.0 MHz crystal

⊣⊢

2001	4822 126 12642	10nF 20% 50V
2002	4822 124 81022	1µF 20% 50V
2007	4822 121 41856	22nF 5% 250V
2008	5322 121 42386	100nF 5% 63V
2009	4822 126 12642	10nF 20% 50V
2010	4822 124 40202	1500µF 20% 16V
2016	4822 126 12642	10nF 20% 50V
2017	4822 122 31348	120pF 2% 100V
2026	4822 122 31056	12pF 2% 100V
2027	4822 126 12642	10nF 20% 50V
2101	4822 122 33532	3.3nF 5% 50V
2102	4822 122 31072	47pF 2% 100V
2102	4822 126 12641	4.7nF 20%
2102	4822 126 12789	82pF 5% 50V
2103	4822 121 51231	820pF 1% 400V
2104	4822 124 40248	10µF 20% 63V
2112	4822 122 31072	47pF 2% 100V
2112	4822 126 12519	330pF 10%
2112	4822 126 13097	560pF 10% 50V
2119	4822 126 12862	56pF 5% 50V
2119	4822 126 13096	270pF 10% 50V
2123	4822 126 12639	2.2nF 20%
2200	4822 121 51319	1µF 10% 63V
2208	4822 122 33449	47nF 30% 50V
2212	5322 121 42386	100nF 5% 63V
2213	4822 121 42868	220nF 5% 50V
2219	4822 121 51319	1µF 10% 63V
2220▲	4822 124 40433	47µF 20% 25V
2221	5322 121 42386	100nF 5% 63V
2222	4822 124 81023	2.2µF 20% 50V
2223	5322 121 42386	100nF 5% 63V
2224	4822 124 81021	100µF 20% 16V
2225	4822 126 12643	22nF 20% 50V
2228	4822 121 51252	470nF 5% 63V
2228	4822 124 81022	1µF 20% 50V
2236	5322 122 32491	1nF 20% 100V
2243	4822 126 12643	22nF 20% 50V
2245	5322 121 42386	100nF 5% 63V
2246	4822 121 42408	220nF 5% 63V
2248	5322 122 32491	1nF 20% 100V
2249	5322 122 32491	1nF 20% 100V
2251	4822 126 12643	22nF 20% 50V
2253	4822 126 12643	22nF 20% 50V
2254	4822 124 81032	22µF 20% 50V
2254	5322 124 41431	22µF 20% 35V
2256	5322 121 42386	100nF 5% 63V
2257	5322 121 42386	100nF 5% 63V
2260	4822 122 31061	18pF 2% 100V
2260	4822 126 12861	15pF 5% 50V
2261	4822 126 12643	22nF 20% 50V
2262▲	4822 124 40433	47µF 20% 25V
2264	4822 126 12643	22nF 20% 50V
2265	4822 124 81023	2.2µF 20% 50V
2266	4822 124 41757	10µF 20% 16V
2272	4822 126 12641	4.7nF 20%
2273	5322 121 42386	100nF 5% 63V
2275	5322 122 32334	220pF 10% 100V
2277	5322 122 32334	220pF 10% 100V
2280	4822 121 43526	47nF 5% 250V
2281	5322 122 32491	1nF 20% 100V
2282	5322 122 32491	1nF 20% 100V
2283	5322 122 32491	1nF 20% 100V
2284	4822 121 43526	47nF 5% 250V
2285	4822 121 43526	47nF 5% 250V
2302	4822 126 12643	22nF 20% 50V
2304	4822 126 13097	560pF 10% 50V
2306	4822 124 80495	4.7µF 20%
2317	4822 126 13097	560pF 10% 50V
2330	4822 126 13097	560pF 10% 50V
2340	4822 126 12833	4.7nF 20% 2KV
2350	5322 122 32491	1nF 20% 100V
2351	4822 121 41673	220nF 10% 100V
2401	4822 122 31176	390pF 10% 500V
2401	4822 126 13185	680pF 10% 500V
2402	5322 121 42386	100nF 5% 63V
2403	4822 126 11134	5.6nF 10% 50V
2404	4822 124 81039	3300µF 20% 25V
2405	4822 124 21212	15µF 20% 40V
2414	4822 126 12639	2.2nF 20%
2415	4822 124 80059	100µF 20% 25V
2416	4822 121 43526	47nF 5% 250V
2421	4822 122 33305	2.7nF 5% 50V
2422	4822 121 43823	470nF 5% 50V
2423	4822 126 12864	2.2nF 2% 250V
2424	4822 124 81022	1µF 20% 50V
2425	4822 126 12642	10nF 20% 50V
2426	4822 121 41853	100nF 10% 100V
2427	4822 126 12641	4.7nF 20%
2428	4822 122 30045	27pF 2% 100V
2431	4822 121 43526	47nF 5% 250V
2431	4822 122 33449	47nF 30% 50V
2432	4822 121 43526	47nF 5% 250V
2432	4822 122 33449	47nF 30% 50V
2438	4822 121 42007	100nF 10% 100V
2439	4822 126 11308	47pF 5% 500V
2440	4822 126 12519	330pF 10%
2441▲	4822 126 11382	1nF 10% 1KV
2442	4822 122 40112	560pF 20% 500V
2443	4822 124 41545	220µF 20% 16V
2444	4822 121 42007	100nF 10% 100V
2445▲	4822 126 12274	1500pF 10%R(HR) 2KV
2446▲	4822 121 70465	11nF 5% 1.6KV
2446▲	4822 121 70542	12nF 5% 1.6KV
2447▲	4822 126 13435	1.2nF 10% 2KV
2448	4822 124 22583	47µF 160V
2448	4822 124 81042	47µF 50-20% 200V
2449▲	4822 126 11382	1nF 10% 1KV
2450▲	4822 121 42073	390 nF 10% 400V
2450	4822 121 70281	510nF 5% 400V
2451	4822 124 81043	10µF 20% 100V
2451	4822 124 40756	1µF 20% 100V
2452	4822 124 22582	2.2mF 20% 16V
2452	4822 124 40432	1500µF 20% 25V
2453	4822 124 41747	680µF 20% 35V
2453	4822 124 80063	680µF 20% 35V
2454▲	4822 126 11382	1nF 10% 1KV
2456	4822 126 11308	47pF 5% 500V
2457	4822 121 51524	56nF 10% 250V
2457	5322 121 42532	18nF 10% 400V
2458	4822 124 81022	1µF 20% 50V
2460	4822 121 51385	33nF 20% 100V
2461	4822 121 40475	15nF 10% 400V
2462▲	4822 126 12269	680pF 10%R(HR) 2KV
2470	4822 124 10533	22µF 20% 250V
2472	4822 126 12792	2.2nF 10% 500V
2480	4822 121 43368	47µF 160V
2480	4822 124 40756	1µF 20% 100V
2481	4822 121 43396	120nF 5% 63V
2482	4822 124 81022	1µF 20% 50V
2483▲	4822 124 40433	47µF 20% 25V
2484	4822 126 11134	5.6nF 10% 50V
2484	4822 126 12639	2.2nF 20%
2485	4822 121 51436	820nF 10% 63V
2505	4822 124 41748	220µF 20% 400V
2505▲	4822 124 42159	330µF 20% 400V
2505	4822 124 80855	330µF 20% 400V
2513	4822 126 12792	2.2nF 10% 500V
2520▲	4822 126 12269	680pF 10%R(HR) 2KV
2521▲	4822 126 12095	220pF 10% 2KV
2522	4822 126 11824	100pF 10% 1KV
2525▲	4822 122 40602	1nF 20% 400V

Spare parts list

2526	4822 121 42071	3.9nF 10% 400V
2529	4822 126 12642	10nF 20% 50V
2530	4822 126 13153	1nF 10%R(HR) 3KV
2531	4822 124 22583	47μF 160V
2531	4822 124 81042	47μF 20% 200V
2540	4822 124 42106	1500μF 20% 35V
2541▲	4822 126 11382	1nF 10% 1KV
2548	4822 126 11824	100pF 10% 1KV
2561	4822 124 81032	22μF 20% 50V
2561	5322 124 41431	22μF 20% 35V
2604	4822 122 33293	100pF 5% 50V
2605	4822 124 40749	3.3μF 20% 63V
2605	4822 124 81041	3.3μF 20% 50V
2606	4822 126 12643	22nF 20% 50V
2607	4822 122 33293	100pF 5% 50V
2608	5322 122 32356	820pF 10% 100V
2610	5322 122 32356	820pF 10% 100V
2615	5322 122 32356	820pF 10% 100V
2620	4822 124 81022	1μF 20% 50V
2624	5322 122 32356	820pF 10% 100V
2625	5322 122 32356	820pF 10% 100V
2626	5322 122 32356	820pF 10% 100V
2627	5322 122 32356	820pF 10% 100V
2628	5322 122 32356	820pF 10% 100V
2636	4822 122 33307	10nF 5% 50V
2636	4822 126 12642	10nF 20% 50V
2638	5322 122 32491	1nF 20% 100V
2640	4822 122 30045	27pF 2% 100V
2648	4822 124 40248	10μF 20% 63V
2656	5322 121 42661	330nF 5% 63V
2682▲	4822 124 40433	47μF 20% 25V
2682	4822 124 81022	1μF 20% 50V
2683	4822 126 12639	2.2nF 20%
2683	5322 121 42386	100nF 5% 63V
2685	4822 124 81032	22μF 20% 50V
2686	4822 124 81022	1μF 20% 50V
2687	4822 124 81022	1μF 20% 50V
2688	5322 122 32491	1nF 20% 100V
2689	5322 122 32491	1nF 20% 100V
2692	4822 124 40753	6.8μF 20% 63V
2692	4822 124 81022	1μF 20% 50V
2695	4822 124 81032	22μF 20% 50V
2700	4822 124 40248	10μF 20% 63V
2700	4822 124 40753	6.8μF 20% 63V
2703▲	4822 124 40433	47μF 20% 25V
2711	4822 126 12643	22nF 20% 50V
2714	4822 126 12868	47pF 5% 50V
2714	5322 122 32334	220pF 10% 100V
2721	4822 122 31061	18pF 2% 100V
2721	5322 122 32143	22pF 100V
2722	4822 122 31061	18pF 2% 100V
2722	5322 122 32143	22pF 100V
2726	4822 122 33293	100pF 5% 50V
2727	4822 122 33293	100pF 5% 50V
2728	4822 122 33293	100pF 5% 50V
2734	4822 126 11134	5.6nF 10% 50V
2736	4822 122 33527	100pF 10% 50V
2738	4822 122 33532	3.3nF 5% 50V
2739	5322 122 32491	1nF 20% 100V

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3000	4822 116 52263	2k7 5% 0.5W
3004	4822 116 52207	1k2 5% 0.5W
3005	4822 116 52207	1k2 5% 0.5W
3010▲	4822 052 10109	10Ω 5% 0.33W
3016	4822 116 52269	3k3 5% 0.5W
3017	4822 116 52257	22k 5% 0.5W
3018	4822 116 52256	2k2 5% 0.5W
3019	4822 116 52244	15k 5% 0.5W
3099	4822 050 23305	3M3 1% 0.6W
3106	4822 116 52228	680Ω 5% 0.5W
3113	4822 050 11002	1k 1% 0.4W
3128	4822 050 11002	1k 1% 0.4W
3200	4822 116 52244	15k 5% 0.5W
3201	4822 050 11002	1k 1% 0.4W
3203	4822 116 52256	2k2 5% 0.5W
3204	4822 116 52256	2k2 5% 0.5W
3205	4822 116 52256	2k2 5% 0.5W
3206	4822 116 52175	100Ω 5% 0.5W
3206	4822 116 52213	180Ω 5% 0.5W
3207	4822 116 52269	3k3 5% 0.5W
3208	4822 050 11002	1k 1% 0.4W
3208	4822 116 52253	2k 5% 0.5W
3210	4822 116 52234	100k 5% 0.5W
3211▲	4822 050 23301	330Ω 1% 0.6W
3212	4822 116 52283	4k7 5% 0.5W
3213	4822 116 52234	100k 5% 0.5W
3214	4822 050 11002	1k 1% 0.4W
3225	4822 116 52283	4k7 5% 0.5W
3236	4822 116 52233	10k 5% 0.5W
3250	4822 116 52233	10k 5% 0.5W
3251	4822 116 52233	10k 5% 0.5W
3252	4822 116 52176	10Ω 5% 0.5W
3253	4822 116 52176	10Ω 5% 0.5W
3254	4822 116 52226	560Ω 5% 0.5W
3255	4822 050 11002	1k 1% 0.4W
3256	4822 050 11002	1k 1% 0.4W
3257	4822 050 11002	1k 1% 0.4W
3259	4822 050 11002	1k 1% 0.4W
3260	4822 116 52291	56k 5% 0.5W
3261	4822 116 52238	12k 5% 0.5W
3261	4822 116 52271	33k 5% 0.5W
3262	4822 116 52296	6k8 5% 0.5W
3263	4822 116 52244	15k 5% 0.5W
3264	4822 100 20166	10k 30% lin 0.1W
3265	4822 116 52207	1k2 5% 0.5W
3265	4822 116 52231	820Ω 5% 0.5W
3267	4822 116 52244	15k 5% 0.5W
3268	4822 116 52233	10k 5% 0.5W
3270	4822 116 52264	27k 5% 0.5W
3271	4822 116 52283	4k7 5% 0.5W
3273	4822 116 52234	100k 5% 0.5W
3278	4822 116 52283	4k7 5% 0.5W
3284	4822 050 11002	1k 1% 0.4W
3300▲	4822 052 10101	100Ω 5% 0.33W
3301	4822 116 52265	270k 5% 0.5W
3302	4822 053 12123	12k 5% 3W
3303	4822 050 21502	1k5 1% 0.6W
3304	4822 116 52175	100Ω 5% 0.5W
3305	4822 116 52215	220Ω 5% 0.5W
3306	4822 116 52246	1k6 5% 0.5W
3307	5322 100 11542	4k7 30% lin 0.1W
3308	4822 116 52175	100Ω 5% 0.5W
3309	4822 116 52213	180Ω 5% 0.5W
3310	4822 116 52289	5k6 5% 0.5W
3311	4822 116 52289	5k6 5% 0.5W
3312	4822 116 52289	5k6 5% 0.5W
3313	5322 100 11541	2k2 30% lin 0.1W
3314	5322 100 11541	2k2 30% lin 0.1W
3315	4822 053 12123	12k 5% 3W
3316	4822 050 21502	1k5 1% 0.6W
3317	4822 116 52175	100Ω 5% 0.5W
3318	4822 116 52215	220Ω 5% 0.5W
3319	4822 116 52246	1k6 5% 0.5W
3320	5322 100 11542	4k7 30% lin 0.1W
3321	4822 116 52175	100Ω 5% 0.5W
3322	4822 116 52222	390Ω 5% 0.5W
3323	4822 116 52213	180Ω 5% 0.5W
3324	4822 116 52243	1k5 5% 0.5W
3325	4822 116 52283	4k7 5% 0.5W
3326	4822 116 52217	270Ω 5% 0.5W
3327	4822 116 52228	680Ω 5% 0.5W
3328	4822 053 12123	12k 5% 3W
3329	4822 050 21502	1k5 1% 0.6W
3330	4822 116 52175	100Ω 5% 0.5W
3331	4822 116 52213	180Ω 5% 0.5W
3332	4822 116 52215	220Ω 5% 0.5W
3333	4822 116 52246	1k6 5% 0.5W
3334	5322 100 11542	4k7 30% lin 0.1W
3335	4822 116 52175	100Ω 5% 0.5W
3336	4822 050 21502	1k5 1% 0.6W
3337	4822 050 21502	1k5 1% 0.6W
3344▲	4822 052 10188	1Ω8 5% 0.33W
3345▲	4822 052 10278	2Ω7 5% 0.33W
3350	4822 116 52234	100k 5% 0.5W
3400	4822 116 52256	2k2 5% 0.5W
3401	4822 116 52243	1k5 5% 0.5W
3402	4822 050 11002	1k 1% 0.4W
3402▲	4822 050 21002	1k 1% 0.6W
3403	4822 116 52259	2k4 5% 0.5W
3403	4822 116 52263	2k7 5% 0.5W
3404	4822 116 52243	1k5 5% 0.5W
3404	4822 116 52266	3k 5% 0.5W
3405	4822 116 52193	39Ω 5% 0.5W
3405	4822 116 81844	2Ω7 5% 0.5W
3406	4822 116 52257	22k 5% 0.5W
3406	4822 116 52271	33k 5% 0.5W
3407	4822 116 52254	20k 5% 0.5W
3407	4822 116 52264	27k 5% 0.5W
3408	4822 273 30397	1P 50M A 35V
3409	4822 116 52276	3k9 5% 0.5W
3410	4822 100 11391	330Ω 30% lin 0.1W
3411	4822 116 80676	1Ω5 5% 0.5W
3412	4822 116 80676	1Ω5 5% 0.5W
3413▲	4822 053 10221	220Ω 5% 1W
3414	4822 116 52256	2k2 5% 0.5W
3415	4822 116 52256	2k2 5% 0.5W
3416	4822 053 11152	1k5 5% 2W
3416▲	4822 053 11181	180Ω 5% 2W
3418▲	4822 050 21001	100Ω 1% 0.6W
3419	4822 117 11561	4k7 10% 5W
3420	4822 100 20166	10k 30% lin 0.1W
3421	4822 116 52235	1M 5% 0.5W
3421	4822 116 52305	820k 5% 0.5W
3422	4822 116 52251	18k 5% 0.5W
3423	4822 116 52176	10Ω 5% 0.5W
3424	4822 053 10391	390Ω 5% 1W
3425	4822 116 52278	390k 5% 0.5W
3426	4822 116 52298	680k 5% 0.5W
3427	4822 116 52305	820k 5% 0.5W
3428	4822 116 52257	22k 5% 0.5W
3429	4822 116 52297	68k 5% 0.5W
3430	4822 116 52258	220k 5% 0.5W
3430	4822 116 52278	390k 5% 0.5W
3431	4822 116 52276	3k9 5% 0.5W
3432	4822 116 52245	150k 5% 0.5W
3432	4822 116 52252	180k 5% 0.5W
3433	4822 116 52304	82k 5% 0.5W
3434	4822 116 52263	2k7 5% 0.5W
3434	4822 116 52283	4k7 5% 0.5W
3435	4822 116 52259	2k4 5% 0.5W
3435	4822 116 52283	4k7 5% 0.5W
3436	4822 050 24705	4M7 1% 0.6W
3436	4822 050 26805	6M8 1% 0.6W
3437	4822 116 52244	15k 5% 0.5W
3438	4822 116 52303	8k2 5% 0.5W
3439	4822 116 52269	3k3 5% 0.5W
3440	4822 116 52199	68Ω 5% 0.5W
3442	4822 116 52289	5k6 5% 0.5W
3443▲	4822 052 10222	2k2 5% 0.33W
3446	4822 116 52213	180Ω 5% 0.5W
3447	4822 116 52296	6k8 5% 0.5W
3448▲	4822 052 11108	1Ω 5% 0.5W
3451	4822 116 52271	33k 5% 0.5W
3452▲	4822 052 10279	27Ω 5% 0.33W
3452▲	4822 052 11108	1Ω 5% 0.5W
3454	4822 050 22202	2k2 1% 0.6W
3455	4822 116 52228	680Ω 5% 0.5W
3456▲	4822 053 20334	330k 5% 0.25W
3456▲	4822 053 20434	430k 5% 0.25W
3457	4822 116 52233	10k 5% 0.5W
3458	4822 116 52226	560Ω 5% 0.5W
3460	4822 116 52251	18k 5% 0.5W
3460	4822 116 52257	22k 5% 0.5W
3470▲	4822 052 11828	8Ω2 5% 0.5W
3471	4822 116 52224	470Ω 5% 0.5W
3472	4822 116 52228	680Ω 5% 0.5W
3473	4822 116 52224	470Ω 5% 0.5W
3474	4822 116 52223	430Ω 5% 0.5W
3480▲	4822 052 10128	1Ω2 5% 0.33W
3481	4822 116 52252	180k 5% 0.5W
3481	4822 116 52284	47k 5% 0.5W
3482	4822 116 52251	18k 5% 0.5W
3482	4822 116 52284	47k 5% 0.5W
3483	4822 116 52283	4k7 5% 0.5W
3483	4822 116 52291	56k 5% 0.5W
3484	4822 100 20166	10k 30% lin 0.1W
3484	4822 101 11003	220k 30% 0.1W
3485	4822 050 11002	1k 1% 0.4W
3486	4822 116 52224	470Ω 5% 0.5W
3486	4822 116 52283	4k7 5% 0.5W
3487	4822 116 52235	1M 5% 0.5W
3487	4822 117 11566	2M 5%
3488	4822 116 52234	100k 5% 0.5W
3489	4822 100 11348	1k 30% lin 0.1W
3489	4822 100 20589	20k 30% lin 0.1W
3519	4822 117 10422	0.33Ω 5% 3W
3520	4822 113 80637	1k5 5% 5W
3521▲	4822 052 10222	2k2 5% 0.33W
3522	4822 116 52206	120Ω 5% 0.5W
3522	4822 116 52215	220Ω 5% 0.5W
3525▲	4822 116 60127	4M 7 5% 1W
3526	4822 053 11473	47k 5% 2W
3527▲	4822 052 11109	10Ω 5% 0.5W
3528	4822 117 11562	1k5 5% 7W
3529	4822 116 52298	680k 5% 0.5W
3530	4822 116 52231	820Ω 5% 0.5W
3542	4822 116 52191	33Ω 5% 0.5W
3560	4822 116 52213	180Ω 5% 0.5W
3561	4822 116 52195	47Ω 5% 0.5W
3562	4822 116 52224	470Ω 5% 0.5W
3563	4822 116 52215	220Ω 5% 0.5W
3565	4822 116 52233	10k 5% 0.5W
3597	4822 116 52233	10k 5% 0.5W
3597	4822 116 52234	100k 5% 0.5W
3597	4822 116 52239	120k 5% 0.5W
3597	4822 116 52245	150k 5% 0.5W
3597	4822 116 52252	180k 5% 0.5W
3597	4822 116 52258	220k 5% 0.5W
3597	4822 116 52291	56k 5% 0.5W
3597	4822 116 52297	68k 5% 0.5W
3598	4822 116 52271	33k 5% 0.5W
3599	4822 116 52228	680Ω 5% 0.5W
3599	4822 116 52252	180k 5% 0.5W
3599	4822 116 52269	3k3 5% 0.5W
3599	4822 116 52272	330k 5% 0.5W
3599	4822 116 52284	47k 5% 0.5W
3599	4822 116 52289	5k6 5% 0.5W
3599	4822 116 52291	56k 5% 0.5W
3599	4822 116 52297	68k 5% 0.5W
3600	4822 116 90884	8k2 x 10 res. bank
3601	4822 116 90883	8k2 x 8 res. bank
3602	4822 116 90885	8k2 x 6 res. bank
3603	4822 116 52269	3k3 5% 0.5W
3604	4822 116 52175	100Ω 5% 0.5W
3605	4822 116 52228	680Ω 5% 0.5W
3606	4822 116 52283	4k7 5% 0.5W
3607	4822 116 52303	8k2 5% 0.5W
3608	4822 116 52175	100Ω 5% 0.5W
3609	4822 116 52175	100Ω 5% 0.5W
3611	4822 116 52175	100Ω 5% 0.5W
3612	4822 116 52304	82k 5% 0.5W
3617	4822 116 52175	100Ω 5% 0.5W
3622	4822 116 52284	47k 5% 0.5W
3625	4822 050 11002	1k 1% 0.4W
3626	4822 116 52195	47Ω 5% 0.5W
3626	4822 116 52284	47k 5% 0.5W
3627	4822 116 52283	4k7 5% 0.5W
3633	4822 050 11002	1k 1% 0.4W
3633	4822 116 52303	8k2 5% 0.5W
3634	4822 116 52297	68k 5% 0.5W
3635	4822 116 52233	10k 5% 0.5W
3637	4822 116 52278	390k 5% 0.5W
3638	4822 116 52258	220k 5% 0.5W
3640	4822 116 52265	270k 5% 0.5W
3640	4822 116 52297	68k 5% 0.5W
3641	4822 116 52239	120k 5% 0.5W
3641	4822 116 52271	33k 5% 0.5W
3642	4822 116 52256	2k2 5% 0.5W
3643	4822 116 52256	2k2 5% 0.5W
3645	4822 050 26804	680k 1% 0.6W
3646	4822 116 52263	2k7 5% 0.5W
3647	4822 116 52233	10k 5% 0.5W
3647	4822 116 52284	47k 5% 0.5W
3648	4822 116 52257	22k 5% 0.5W
3648	4822 116 52261	24k 5% 0.5W
3649	4822 116 52238	12k 5% 0.5W
3650	4822 116 52244	15k 5% 0.5W
3652	4822 116 52258	220k 5% 0.5W
3653	4822 116 52211	150Ω 5% 0.5W
3654	4822 116 52244	15k 5% 0.5W
3656	4822 116 52233	10k 5% 0.5W
3661	4822 116 52249	1k8 5% 0.5W
3662	4822 116 52289	5k6 5% 0.5W
3670	4822 116 52226	560Ω 5% 0.5W
3671	4822 116 52226	560Ω 5% 0.5W
3672	4822 116 52233	10k 5% 0.5W
3673	4822 116 52233	10k 5% 0.5W
3681	4822 050 22203	22k 1% 0.6W
3682	4822 116 52257	22k 5% 0.5W
3683	4822 116 52257	22k 5% 0.5W
3684▲	4822 050 21003	10k 1% 0.6W
3685	4822 116 52257	22k 5% 0.5W
3685	4822 116 52284	47k 5% 0.5W
3686▲	4822 050 21003	10k 1% 0.6W
3687	4822 116 52284	47k 5% 0.5W
3688	4822 116 52175	100Ω 5% 0.5W
3688	4822 116 52195	47Ω 5% 0.5W
3689	4822 116 52175	100Ω 5% 0.5W
3690	4822 116 52175	100Ω 5% 0.5W
3691	4822 116 52284	47k 5% 0.5W
3691	4822 116 52303	8k2 5% 0.5W
3692	4822 116 52304	82k 5% 0.5W
3693	4822 116 52257	22k 5% 0.5W
3693	4822 116 52284	47k 5% 0.5W
3694	4822 116 52195	47Ω 5% 0.5W
3695	4822 116 52238	12k 5% 0.5W
3695	4822 116 52277	39k 5% 0.5W
3696	4822 050 11002	1k 1% 0.4W
3696	4822 116 52283	4k7 5% 0.5W
3697	4822 116 52175	100Ω 5% 0.5W
3698	4822 116 52175	100Ω 5% 0.5W
3699	4822 116 52303	8k2 5% 0.5W
3700	4822 116 52284	47k 5% 0.5W
3702	4822 116 52239	120k 5% 0.5W
3703	4822 116 52284	47k 5% 0.5W
3704	4822 116 52233	10k 5% 0.5W
3706	4822 116 52252	180k 5% 0.5W
3707	4822 116 52256	2k2 5% 0.5W
3708	4822 116 52245	150k 5% 0.5W
3709	4822 050 11002	1k 1% 0.4W
3710	4822 116 52222	390Ω 5% 0.5W
3711	4822 116 52284	47k 5% 0.5W
3713	4822 116 52278	390k 5% 0.5W
3715	4822 116 52249	1k8 5% 0.5W
3717	4822 116 52269	3k3 5% 0.5W
3718	4822 116 52269	3k3 5% 0.5W
3719	4822 116 52233	10k 5% 0.5W
3720	4822 116 52206	120Ω 5% 0.5W
3721	4822 116 52206	120Ω 5% 0.5W
3726	4822 116 52283	4k7 5% 0.5W
3727	4822 116 52283	4k7 5% 0.5W
3728	4822 116 52283	4k7 5% 0.5W
3730	4822 116 52283	4k7 5% 0.5W
3731	4822 116 52233	10k 5% 0.5W
3732	4822 116 52233	10k 5% 0.5W
3733	4822 116 52233	10k 5% 0.5W
3734	4822 116 52244	15k 5% 0.5W
3735	4822 116 52234	100k 5% 0.5W
3736	4822 116 52285	470k 5% 0.5W
3737	4822 116 52283	4k7 5% 0.5W
3738	4822 116 52283	4k7 5% 0.5W

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5002▲	4822 157 53941	100μH 10%
5014	4822 157 53343	0.82μH 20%
5014	4822 157 63065	0.68μH 10%
5020	4822 157 70439	Toko
5094	4822 157 71112	3.3μH 10%
5100	4822 157 71039	120μH 10%
5112	4822 157 52224	15μH 10%
5112▲	4822 157 52286	22μH 10%
5112	4822 157 53906	47μH 10%
5206	4822 152 20667	5.6μH 10%
5206	4822 157 53303	12μH 10%
5206	4822 157 62767	8.2μH 10%
5209▲	4822 157 52265	100μH 10%
5209	4822 157 71404	100μH 5%
5260	4822 157 71117	Toko 38.9 MHz
5260	4822 157 71407	Toko 45.75 MHz
5286	4822 152 20667	5.6μH 10%
5286	4822 157 53303	12μH 10%
5287	4822 152 20667	5.6μH 10%
5287	4822 157 53303	12μH 10%
5288	4822 152 20667	5.6μH 10%
5288	4822 157 53303	12μH 10%
5338	4822 156 20966	47μH 10%
5424	4822 157 52007	4.7μH 10%
5441	4822 146 10111	Line driver
5443▲	4822 157 51462	10μH 10%

Spare parts list

5445▲	4822 140 10494	LOT 25" TXT & non TXT
5445▲	4822 140 10511	LOT 25" -/93
5445▲	4822 140 10506	LOT 29" non TXT
5445▲	4822 140 10507	LOT 29" TXT
5446	4822 157 60171	Bead 10 MHz
5449▲	4822 157 51462	10μH 10%
5454	4822 157 71118	Lin. coil 25"
5454	4822 152 20721	Lin. coil 25" -/93
5454	4822 157 71406	Lin. coil 29"
5480▲	4822 157 71405	Bridge coil
5480▲	4822 157 10728	Bridge coil -/93
5481	4822 157 62336	100μH 10%
5513	4822 157 60171	Bead 10 MHz
5522	4822 157 52007	4.7μH 10%
5523	4822 152 20667	5.6μH 10%
5524	4822 157 63708	5.6μH 10%
5525▲	4822 146 31348	FFS transformer 25"
5525▲	4822 140 10508	FFS transformer 29" 140-276V
5525▲	4822 148 81405	FFS transformer 29" 90-276V
5528	4822 157 70823	3μ9 10%
5529	4822 157 60171	Bead 10 MHz
5530	4822 157 60171	Bead 10 MHz
5531	4822 157 63698	33μH 7.5%
5532	4822 157 60171	Bead 10 MHz
5540	4822 157 60171	Bead 10 MHz
5543	4822 157 52259	5.6μH 10%
5620▲	4822 157 52285	6.8μH 10%
5620	4822 157 71112	3.3μH 10%
5621▲	4822 157 52285	6.8μH 10%
5621	4822 157 71112	3.3μH 10%
5711▲	4822 157 52285	6.8μH 10%
5720▲	4822 157 52286	22μH 10%
5720	4822 157 52983	22μH 10%

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6016	5322 130 34955	BA482
6017▲	4822 130 30621	1N4148
6219▲	4822 130 31983	BAT85
6254	4822 130 34233	BZX79-C5V1
6280▲	4822 130 30621	1N4148
6281▲	4822 130 30621	1N4148
6282▲	4822 130 30621	1N4148
6284▲	4822 130 30621	1N4148
6286▲	4822 130 30621	1N4148
6287▲	4822 130 30621	1N4148
6288▲	4822 130 30621	1N4148
6305	4822 130 34174	BZX79-C4V7
6306	4822 130 34189	BAV20
6318	4822 130 34174	BZX79-C4V7
6319	4822 130 34189	BAV20
6327	4822 130 34174	BZX79-C4V7
6328	4822 130 34189	BAV20
6350	4822 130 80928	BZX79-C30
6412▲	4822 130 30621	1N4148
6415▲	4822 130 30621	1N4148
6416	4822 130 42488	BYD33D
6417▲	4822 130 34173	BZX79-C5V6
6418▲	4822 130 30621	1N4148
6420	5322 130 34563	BZX79-C2V7
6423	4822 130 34382	BZX79-C8V2
6425▲	4822 130 31983	BAT85
6426▲	4822 130 31983	BAT85
6427▲	4822 130 31983	BAT85
6428	4822 130 34382	BZX79-C8V2
6437	4822 130 34281	BZX79-C15
6438	4822 130 34281	BZX79-C15
6439▲	4822 130 31631	BYV10-20
6441▲	4822 130 30621	1N4148
6442	4822 130 42488	BYD33D
6443	4822 130 42488	BYD33D
6446	5322 130 31559	BY448
6447	4822 130 42488	BYD33D
6447	5322 130 31938	BYV27-200
6448▲	4822 130 41275	BY228/20
6449	4822 130 42489	BYD33G
6450	4822 130 42488	BYD33D
6451	4822 130 42488	BYD33D
6452	4822 130 42489	BYD33G
6453	5322 130 31559	BY448
6455	4822 130 34382	BZX79-C8V2
6458▲	4822 130 30621	1N4148
6470	4822 130 42489	BYD33G
6471▲	4822 130 31983	BAT85
6473▲	4822 130 31983	BAT85
6481	5322 130 31574	BZT03-C15
6512▲	4822 130 30621	1N4148
6513▲	4822 130 30621	1N4148
6518	4822 130 34174	BZX79-C4V7
6519	4822 130 34174	BZX79-C4V7
6519	5322 130 31574	BZT03-C15
6520	4822 130 42606	BYD33J
6521▲	4822 130 34499	BZX79-C20
6526▲	4822 130 32896	BYD33M
6527	4822 130 42606	BYD33J
6531▲	4822 130 33531	BY229F-600
6541	4822 130 81104	MA689
6562	4822 130 34174	BZX79-C4V7
6565	5322 130 31504	BZX79-C3V3
6606▲	4822 130 34173	BZX79-C5V6
6607▲	4822 130 30621	1N4148
6618	4822 130 34195	BZX79-B13
6618	4822 130 34197	BZX79-B12
6632▲	4822 130 30621	1N4148
6633	4822 130 34174	BZX79-C4V7
6648	4822 130 34142	BZX79-C33
6648	4822 130 82037	HZT33
6690▲	4822 130 30621	1N4148
6715▲	4822 130 30621	1N4148

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7000	4822 209 10892	LA7910
7109	4822 130 40938	BC548
7212▲	4822 130 44197	BC558B
7213▲	4822 130 44197	BC558B
7214	4822 130 40941	BC558
7215	4822 130 40938	BC548
7216	4822 130 40938	BC548
7217	4822 130 40938	BC548
7218	5322 209 86283	L7808CP
7225	4822 209 33398	TDA8362E/N2
7225	4822 209 33479	TDA8361E/N3
7225	4822 209 33916	TDA8361E/N4
7245	4822 209 32359	TDA8395/N1
7255	4822 209 31714	TDA4661/V2
7270	4822 130 40938	BC548
7278	4822 130 41376	BF494B
7305	4822 130 41773	BF869
7306	4822 130 41376	BF494B
7318	4822 130 41773	BF869
7319	4822 130 41376	BF494B
7325	4822 130 40941	BC558
7327	4822 130 41773	BF869
7328	4822 130 41376	BF494B
7332	4822 130 40941	BC558
7400	4822 209 33321	TDA3654/N3
7423	4822 130 40938	BC548
7430	4822 130 40938	BC548
7439	5322 130 44647	BC368
7440	4822 130 42159	BF819
7445	4822 130 63569	BU1508DX
7446	4822 130 41646	BF423
7480	4822 130 40824	BD136
7481	4822 130 40938	BC548
7513▲	4822 130 63499	STH12N60FI
7513	4822 130 63698	STH8NA60FI
7563	4822 130 40941	BC558
7600	4822 209 33773	PCA84C844/163 SA+ V0.9
7600	4822 209 33774	P83C055-CV 6123NB S12 V3.1
7634	4822 130 40937	BC548B
7635	4822 130 40937	BC548B
7636	4822 130 40938	BC548
7637	4822 130 40938	BC548
7638	4822 130 40938	BC548
7647	4822 130 41594	PH2369
7684	4822 130 40938	BC548
7685	4822 130 40938	BC548
7686	4822 130 40938	BC548
7710▲	4822 209 52316	ST24C04B1
7730	4822 209 10257	HEF4040BP
7731	4822 209 10248	HEF4013BP
7733▲	4822 130 44196	BC548C
7734	4822 130 40938	BC548

Power supply control panel 29" [AA]

Various

	4822 212 31771	Power supply cont. panel 29" 90-276V
	4822 212 31774	Power supply cont. panel 29" 140-276V
	3139 138 64170	Power supply cont. panel 29" -/93 (local sourcing)
	4822 265 31099	6 pins blue snap connector

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2506	5322 121 10472	47μF 25
2507	4822 121 43526	47nF 5% 250V
2508	4822 121 43187	27nF 5% 250V
2510	5322 122 32334	220pF 10% 100V
2511	5322 122 32334	220pF 10% 100V
2512	4822 121 51319	1μF 10% 63V
2514	4822 126 13097	560pF 10% 50V
2515	4822 126 13097	560pF 10% 50V
2516	4822 124 80371	4.7μF 20% 50V
2517	4822 126 11157	470pF 10% 500V

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3508	4822 116 52249	1k8 5% 0.5W
3510	4822 116 52283	4k7 5% 0.5W
3511	4822 116 52264	27k 5% 0.5W
3512	4822 100 20166	10k 30% lin 0.1W
3515	4822 116 52175	100Ω 5% 0.5W
3516▲	4822 050 22701	270Ω 1% 0.6W
3517▲	4822 052 10159	15Ω 5% 0.33W
3517▲	4822 052 10339	33Ω 5% 0.33W
3518▲	4822 052 10151	150Ω 5% 0.33W
3523	4822 116 52278	390k 5% 0.5W
3524	4822 050 11002	1k 1% 0.4W
3524	4822 116 52207	1k2 5% 0.5W

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6509	4822 130 34174	BZX79-C4V7
6510	4822 130 31024	BZX79-B18
6511▲	4822 130 30621	1N4148
6514	4822 130 34189	BAV20

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7510	4822 209 33432	UC3842BN

Mains input panel 29" [AA]

Various

	4822 212 31769	Mains input panel 29" 90-276V
	4822 212 31773	Mains input panel 29" 140-276V
▲	4822 276 13431	Mains switch
▲	4822 256 30496	Fuse holder
▲	4822 267 31359	2 pins header
▲	4822 265 20441	3 pins header
	4822 410 63517	Mains knob 29"
	4822 404 31357	Bracket for mains input panel
1500	4822 070 34002	Fuse 4 AT

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2500▲	4822 121 70285	470nF 10% 250V
2501	4822 121 70141	33nF 5% 400V
2502	4822 126 12793	2.2nF 10% 2KV
2503	4822 121 42059	100nF 10% 400V
2504	4822 126 12793	2.2nF 10% 2KV
2509	4822 124 22633	22μF 20% 35V
2527▲	4822 122 33665	3.3nF 20% 125V
2528▲	4822 122 33665	3.3nF 20% 125V

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3501	4822 116 40247	18Ω 270V
3502	4822 111 20403	470Ω 10%
3503▲	4822 113 80603	1.5Ω 10% 7W
3504▲	4822 053 21475	4M7 5% 0.5W
3505▲	4822 113 80603	1.5Ω 10% 7W
3506▲	4822 053 11273	27k 5% 2W
3507	4822 116 52251	18k 5% 0.5W
3509	4822 116 40247	18Ω 270V

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5500	4822 157 71408	28mH mains filter

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6500	4822 130 80928	BZX79-C30
6501	4822 130 80928	BZX79-C30
6502▲	4822 130 80858	1N5062
6503▲	4822 130 80858	1N5062
6504▲	4822 130 80858	1N5062
6505▲	4822 130 80858	1N5062
6506	4822 130 34379	BZX79-C27
6510	4822 130 82158	D3SBA60-4003

Dynamic S-correction panel [AA]

Various

	3139 138 57190	Dynamic S-corr. panel -/93 (local sourcing)
	4822 265 20441	3 pins header

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▲2490	4822 121 42442	260nF 5% 200V

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▲5490	4822 140 10509	Bridge coil 250μH

CRT panel 29" [EE]

Various

	4822 212 31772	CRT panel 29" NN
	3139 138 64180	CRT panel 29" -/93 (local sourcing)
▲	4822 255 70254	Holder valve
	4822 265 30934	5 pins header
	4822 265 31153	5 pins header black

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2302	4822 126 12643	22nF 20% 50V
2304	4822 126 13097	560pF 10% 50V
2306	4822 124 80495	4.7μF 20%
2317	4822 126 13097	560pF 10% 50V
2330	4822 126 13097	560pF 10% 50V
2340	4822 126 12833	4.7nF 20% 2KV
2350	5322 122 32491	1nF 20% 100V
2351	4822 121 41673	220nF 10% 100V

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3300▲	4822 052 10101	100Ω 5% 0.33W
3301	4822 116 52265	270k 5% 0.5W
3302	4822 053 12123	12k 5% 3W
3303	4822 050 21502	1k5 1% 0.6W
3304	4822 116 52175	100Ω 5% 0.5W
3305	4822 116 52215	220Ω 5% 0.5W
3306	4822 116 52246	1k6 5% 0.5W
3307	5322 100 11542	4k7 30% lin 0.1W
3308	4822 116 52175	100Ω 5% 0.5W
3309	4822 116 52213	180Ω 5% 0.5W
3310	4822 116 52289	5k6 5% 0.5W
3311	4822 116 52289	5k6 5% 0.5W
3312	4822 116 52289	5k6 5% 0.5W
3313	5322 100 11541	2k2 30% lin 0.1W
3314	5322 100 11541	2k2 30% lin 0.1W
3315	4822 053 12123	12k 5% 3W
3316	4822 050 21502	1k5 1% 0.6W
3317	4822 116 52175	100Ω 5% 0.5W
3318	4822 116 52215	220Ω 5% 0.5W
3319	4822 116 52246	1k6 5% 0.5W
3320	5322 100 11542	4k7 30% lin 0.1W
3321	4822 116 52175	100Ω 5% 0.5W
3322	4822 116 52222	390Ω 5% 0.5W
3323	4822 116 52213	180Ω 5% 0.5W
3324	4822 116 52243	1k5 5% 0.5W
3325	4822 116 52283	4k7 5% 0.5W
3326	4822 116 52217	270Ω 5% 0.5W
3327	4822 116 52228	680Ω 5% 0.5W
3328	4822 053 12123	12k 5% 3W
3329	4822 050 21502	1k5 1% 0.6W
3330	4822 116 52175	100Ω 5% 0.5W
3331	4822 116 52213	180Ω 5% 0.5W
3332	4822 116 52215	220Ω 5% 0.5W
3333	4822 116 52246	1k6 5% 0.5W
3334	5322 100 11542	4k7 30% lin 0.1W
3335	4822 116 52175	100Ω 5% 0.5W
3336	4822 050 21502	1k5 1% 0.6W
3337	4822 050 21502	1k5 1% 0.6W
3344▲	4822 052 10188	1Ω8 5% 0.33W
3345▲	4822 052 10278	2Ω7 5% 0.33W
3350	4822 116 52234	100k 5% 0.5W

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5338	4822 156 20966	47 μH

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6305	4822 130 34174	BZX79-C4V7
6306	4822 130 34189	BAV20
6318	4822 130 34174	BZX79-C4V7
6319	4822 130 34189	BAV20
6327	4822 130 34174	BZX79-C4V7
6328	4822 130 34189	BAV20
6350	4822 130 80928	BZX79-C30

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7305	4822 130 41773	BF869
7306	4822 130 41376	BF494B
7318	4822 130 41773	BF869
7319	4822 130 41376	BF494B
7325	4822 130 40941	BC558
7327	4822 130 41773	BF869
7328	4822 130 41376	BF494B